DOS III EXTENDED FILE MANAGER (UTILITY)
(REV A)

BINARY TAPE	24309-60003
SOURCE TAPES	24309-80016 24309-80017 24309-80018
SOURCE LISTING	24309-90003

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0001  FTN,L,B
0002  C PROGRAM UTIL
0003  C PURPOSE :
0004  C THE PURPOSE OF UTIL IS TO PROVIDE "CONVERSATIONAL" ACCESS TO THE
0005  C OPEN/CLOSE,OBTAIN STATUS,REPACK,INITIALIZE THE DISC, AND COPY FILES:
0006  C I.E. PERFORM MOST OF THE FUNCTIONS CONTAINED IN THE EXTENDED FILE
0007  C EXTENDED FILE MANAGEMENT PACKAGE SO THAT A USER MAY CREATE/DESTROY,
0008  C THE FUNCTIONS "READ AND WRITE " ARE NOT
0009  C MANAGEMENT PACKAGE
0010  C INCORPORATED IN THIS PROGRAM BECAUSE OF POSSIBLE INCLUSION IN AN
0011  C INFORMATION RETRIEVAL SYSTEM. THE DEFINE FUNCTION IS INCORPORATED
0012  C INTERNALLY AND DEFINES 1 OPEN TABLE AND 1 TEMPORARY RECORD BUFFER OF
0013  C 4 SECTORS EVERYTIME UTIL IS CALLED.
0014  C FUNCTIONAL DESCRIPTION:
0015  C UTIL IS VERY SIMILAR IN OPERATION TO THE "EDIT" PROGRAM OF DOS-M
0016  C IN THAT IT ACCEPTS DIRECTIVES FROM THE KEYBOARD TO PROVIDE FILE
0017  C MANIPULATION(ALTHOUGH THE DIRECTIVES ENTERED ARE FUNCTIONALLY
0018  C DIFFERENT). IT IS DIFFERENT TO THE EXTENT THAT ONE OR MORE FILES
0019  C MAY BE MANIPULATED CONCURRENTLY.
0020  C
0021  C IN OPERATION,UTIL RESPONDS TO A KEYBOARD INPUT BY CALLING THE
0022  C APPROPRIATE EFMP FUNCTION(AN ERROR IS PRINTED IF THE INPUT IS INVALI
0023  C . AT THE END OF PROCESSING,UTIL PRINTS RESULTS(OR AN ERROR MESSAGE)
0024  C AND AWAITS FURTHER INPUTS.
0025  C
0026  C KEYBOARD INPUTS INCLUDE;
0027  C
0028  C TO CREATE A FILE:
0029  C /CRE,FNAME,PAKNO,FLGTH,RLGTH,SCODE,USTAT
0030  C
0031  C TO DESTROY A FILE:
0032  C /DES,FNAME,PAKNO,SCODE
0033  C
0034  C TO OPEN A FILE:
0035  C /OPE,FNAME,PAKNO,RCDNO,SCODE
0036  C
0037  C TO CLOSE A FILE:
003H  C /CLO,FNAME,USTAT
0039  C
0040  C TO INITIALIZE A PACK NO.:
0041  C /INI,PAKNO,DIRSZ
0042  C
0043  C TO RESET THE HIGHEST RECORD ACCESSED:
0044  C /RES,FNAME,PAKNO,RCDNO
0045  C
0046  C TO OBTAIN FILE STATUS USE ONE OF THE FOLLOWING
0047  C
0048  C TO DUMP FILE DIRECTORY:
0049  C /STA,DF,FNAME,PAKNO
0050  C
0051  C TO DETERMINE IF A FILE HAS BEEN OPENED:
0052  C /STA,FO,FNAME
0053  C
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0054   C TO PROVIDE A SECURITY CODE CHECK:
0055   C /STA,SC,FNAME,PAKNO,SCODE
0056   C
0057   C TO DETERMINE THE NUMBER OF AVAILABLE SECTORS BETWEEN THE HIGHEST
0058   C RECORD ACCESSED IN A FILE AND THE END OF A FILE:
0059   C /STA,LR,FNAME,PAKNO
0060   C
0061   C TO DETERMINE THE NUMBER OF AVAILABLE SECTORS LEFT BETWEEN THE LAST
0062   C FILE IN THE PACK,AND THE END OF THE PACK:
0063   C /STA,LF,PAKNO
0064   C
0065   C TO OBTAIN THE NAME OF THE NTH FILE ON THE PACK INDICATED BY PAKNO
0066   C WHERE N IS A NUMBER BETWEEN 1 AND THE MAXIMUM NUMBER OF FILES ON A
0067   C PACK:
0068   C /STA,NF,PAKNO,STATB
0069   C
0070   C TO OBTAIN THE NTH PACK NO. ON A SUBCHANNEL WHERE N IS A NUMBER
0071   C BETWEEN 1 AND THE MAXIMUM NUMBER OF PACK NO.'S ON A PLATTER:
0072   C /STA,AP,FNAME,STATB
0073   C
0074   C TO REPACK EXISTING PACKS:
0075   C /REP,PAKNO
0076   C
0077   C IN ORDER TO COPY FILES:
0078   C /COP,FNAME,PAKNO
0079   C
0080   C TO CHANGE THE FILE NAME:
0081   C /CHA,FNAM1,FNAM2,PAKNO,SCODE
0082   C
0083   C TO POST FILES:
0084   C /POS
0085   C
0086   C TO DECREASE FILE SIZE:
0087   C /BRI,FNAME,SCODE
0088   C
0089   C IN RESPONSE TO AN            INPUT,UTIL EXECUTES A COMPUTED GO TO THA
0090   C ACCESSES THE PARTICULAR CODE                  THAT PROCESSES THIS INF
0091   C FOR INSTANCE,THE INPUT OF /CRE,LCB70,1,10,10,-1,0 ACCESSES STATEMENT
0092   C NUMBER 6 IN THE PROGRAM. FIRST OF ALL,THE FILE NAME LCB70 IS PROCESS
0093   C BY THE SUBROUTINE FNAME WHICH PACKS IT INTO 3 WORDS AND STORES IT IN
0094   C THE ARRAY IFNAM. NEXT,THE PACK NUMBER 1 IS EXTRACTED FROM THE INPUT
0095   C FIELD BY THE SUBROUTINE PAKNO(WHICH IS ACTUALLY ONLY A SPECIAL CASE
0096   C THE SUBROUTINE INTR) AND STORED IN IPAKN(PAKNO MAKES SURE THAT THE
0097   C PACK NUMBER IS 1 TO 999,0,OR -1 TO -999),THE OTHER DATA IN THE INPUT
0098   C FIELD ARE PROCESSED BY THE SUBROUTINE INTR WHICH FORMS INTEGER VALUE
0099   C FROM THE ASCII INPUT,IF AN ERROR HAS OCCURRED IN THE INPUT FIELD,
0100   C CONTROL IS TRANSFERRED TO STATEMENT 17 WHICH PRINTS AN ERROR AND
0101   C RETURNS TO STATEMENT 5 FOR FURTHER INPUT. OTHERWISE,THE EXEC CALL IS
0102   C EXECUTED AND LCB70 IS CREATED OR AN ERROR HAS OCCURRED.IF THE FILE H
0103   C BEEN CREATED,UTIL RETURNS THE RESULTS OF ITS ACTION ON THE LIST OUTP
0104   C DEVICE(I.E. "FILE LCB70 CREATED ON PACK # 1 ETC.").IF AN ERROR
0105   C OCCURRED,CONTROL IS TRANSFERRED TO STATEMENT 17 AS ABOVE. IN EITHER
0106   C CASE,CONTROL FINALLY RETURNS TO STATEMENT 5,WHERE UTIL AWAITS FURTHE
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C INPUTS. OTHER INPUTS ARE PROCESSED SIMILARLY BY 1) EXECUTING A SERIES
C OF SUBROUTINES WHICH INTERROGATE THE INPUT FIELD  2) PERFORMING THE
C ACTUAL EXEC CALL AND 3) PRINTING RESULTS.
C
C
C
      PROGRAM UTIL
      DIMENSION JATOE(62),IDIR(72),IDRT(60),ISCOD(2),IFNAM(6),IPAKN(7),
     1NEMTA(7),IPRAM(5),ISTAT(10),IBUFF(512),INOTR(2)
C
C
      COMMON IOPNT(128),ITRBU(512)
C
C
      EQUIVALENCE(IUSTA,ISCOD(2))
C
C
      DATA IETYP,KDEF/0,0/
      DATA IDRT(1),IDRT(2),IDRT(3)/60500B,141500B,154500B/
      DATA IDRT(4),IDRT(5),IDRT(6)/142500B,60500B,142100B/
      DATA IDRT(7),IDRT(8),IDRT(9)/142500B,161100B,60500B/
      DATA IDRT(10),IDRT(11),IDRT(12)/153100B,153500B,142500B/
      DATA IDRT(13),IDRT(14),IDRT(15)/60500B,141500B,151500B/
      DATA IDRT(16),IDRT(17),IDRT(18)/153100B,60500B,141100B/
      DATA IDRT(19),IDRT(20),IDRT(21)/154500B,144500B,60500B/
      DATA IDRT(22),IDRT(23),IDRT(24)/161100B,161500B,140500B/
      DATA IDRT(25),IDRT(26),IDRT(27)/60500B,154500B,142500B/
      DATA IDRT(28),IDRT(29),IDRT(30)/153500B,60500B,141500B/
      DATA IDRT(31),IDRT(32),IDRT(33)/153100B,153500B,60500B/
      DATA IDRT(34),IDRT(35),IDRT(36)/141500B,144100B,140500B/
      DATA IDRT(37),IDRT(38),IDRT(39)/60500B,153500B,153100B/
      DATA IDRT(40),IDRT(41),IDRT(42)/161100B,60500B,142500B/
      DATA IDRT(43),IDRT(44),IDRT(45)/152500B,142100B,0/
      DATA IDRT(46),IDRT(47),IDRT(48)/0,0,0/
      DATA IDRT(49),IDRT(50),IDRT(51)/0,0,0/
      DATA IDRT(52),IDRT(53),IDRT(54)/0,60500B,154500B/
      DATA IDRT(55),IDRT(56)/142500B,161100B/
      DATA IDRT(57),IDRT(58)/60500B,144500B/
      DATA IDRT(59),IDRT(60)/152500B,144500B/
C
      DATA JATOE(1),JATOE(2),JATOE(4)/40100B,40500B,41100B/
      DATA JATOE(5),JATOE(6),JATOE(7)/55500B,41500B,50100B/
      DATA JATOE(8),JATOE(9),JATOE(10)/76500B,46500B,56500B/
      DATA JATOE(11),JATOE(12),JATOE(13)/56100B,47100B,65500B/
      DATA JATOE(14),JATOE(15),JATOE(16)/60100B,45500B,60500B/
      DATA JATOE(17),JATOE(18),JATOE(19)/170100B,170500B,171100B/
      DATA JATOE(20),JATOE(21),JATOE(22)/171500B,172100B,172500B/
      DATA JATOE(23),JATOE(24),JATOE(25)/173100B,173500B,174100B/
      DATA JATOE(26),JATOE(27),JATOE(28)/174500B,42100B,42500B/
      DATA JATOE(29),JATOE(30),JATOE(31)/43100B,77100B,43500B/
      DATA JATOE(32),JATOE(33),JATOE(34)/44100B,44500B,140500B/
      DATA JATOE(35),JATOE(36),JATOE(37)/141100B,141500B,142100B/
      DATA JATOE(38),JATOE(39),JATOE(40)/142500B,143100B,143500B/
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0160          DATA JATOE(41),JATOE(42),JATOE(43)/144100B,144500B,150500B/
0161          DATA JATOE(44),JATOE(45),JATOE(46)/151100B,151500B,152100B/
0162          DATA JATOE(47),JATOE(48),JATOE(49)/152500B,153100B,153500B/
0163          DATA JATOE(50),JATOE(51),JATOE(52)/154100B,154500B,161100B/
0164          DATA JATOE(53),JATOE(54),JATOE(55)/161500B,162100B,162500B/
0165          DATA JATOE(56),JATOE(57),JATOE(58)/163100B,163500B,164100B/
0166          DATA JATOE(59),JATOE(60),JATOE(61)/164500B,45100B,46100B/
0167          DATA JATOE(62),JATOE(3)/47500B,40100B/
0168    C
0169          DATA NEMTA(1),NEMTA(2),NEMTA(3)/42106B,43117B,51503B/
0170          DATA NEMTA(4),NEMTA(5),NEMTA(6)/46122B,46106B,47106B/
0171          DATA NEMTA(7)/40520B/
0172          DATA NTYP,NWRIT,NREAD,K/1,6,5,57/
0173          DATA INOTR(1),INOTR(2)/1,3/
0174    C
0175    C
0176    C
0177    C
0178    C
0179    C
0180    C
0181    C
0182    C
0183    C
0184    C
0185    C
0186    C
0187    C
0188    C
0189    C
0190    C
0191    C
0192    C
0193          CALL RMPAR(IPRAM)
0194          CALL EXEC(24,1,IOPNT,128,ITRBU,INOTR,4,IETYP)
0195          IF(IPRAM(1))5,500,5
0196      500 WRITE(NTYP,501)
0197        5 WRITE(NTYP,502)
0198          READ(NTYP,503)(IDIR(I),I=1,72)
0199          CALL ASCEB(IDIR,1,72,IDIR,1,JATOE)
0200          N=1
0201      600 IF(NCOMP(IDIR,1,4,IDRT,N))1,2,1
0202        1 IF(N-K)3,4,4
0203        4 WRITE(NTYP,507)
0204          GO TO 5
0205        3 N=N+4
0206          GO TO 600
0207        2 N=(N-1)/4+1
0208          N3=5
0209          IF(IDIR(N3)-65500B)21,362,21
0210      362 IF(N-10)20,363,20
0211      363 IETYP=20
0212          GO TO 17
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0213      21 IF(IDIR(N3)-40100B)4,22,4
0214      22 IF(N3-72)23,20,20
0215      23 N3=N3+1
0216         GO TO 21
0217      20 GO TO(6,7,8,9,10,11,12,13,14,15,16,400,450,620,800)N
0218      17 IF(IETYP)18,19,18
0219      18 WRITE(NTYP,504)IETYP
0220         IETYP=0
0221         GO TO 5
0222      16 CALL EXEC(6)
0223         STOP
0224      19 GO TO(200,201,202,203,204,205,206,207,208,209,16,5,5,650,850)N
0225   C
0226   CDIRECTIVE /INI,PAKNO,DIRSZ
0227   C
0228     800 CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0229         CALL INTR(IDIR,N3,N1,N2,IDRSZ,IETYP)
0230         IF (IETYP)17,801,17
0231     801 IETYP=-1
0232         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0233         IF(IETYP)17,802,17
0234     802 CALL EXEC(24,7,IPAKN,IDRSZ,IETYP)
0235         GO TO 17
0236   C
0237   CDIRECTIVE /CRE,FNAME,PAKNO,FLGTH,RLGTH,SCODE,USTAT
0238   C
0239       6 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0240         CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0241         CALL INTR(IDIR,N3,N1,N2,IFLGT,IETYP)
0242         CALL INTR(IDIR,N3,N1,N2,IRLGT,IETYP)
0243         CALL INTR(IDIR,N3,N1,N2,ISCOD,IETYP)
0244         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0245         IF(IETYP)17,350,17
0246     350 IETYP=-1
0247         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0248         IF(IETYP)17,31,17
0249      31 CALL EXEC(24,2,IFNAM,IPAKN,IFLGT,IRLGT,ISCOD,IETYP)
0250         GO TO 17
0251   C
0252   CDIRECTIVE /DES,FNAME,PAKNO,SCODE
0253   C
0254       7 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0255         CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0256         CALL INTR(IDIR,N3,N1,N2,ISCOD,IETYP)
0257         IF(IETYP)17,351,17
0258     351 IETYP=-1
0259         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0260         IF(IETYP)17,32,17
0261      32 CALL EXEC(24,3,IFNAM,IPAKN,ISCOD,IETYP)
0262         GO TO 17
0263   C
0264   CDIRECTIVE /OPE,FNAME,PAKNO,RCDNO,SCODE
0265   C
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0266        8 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0267          CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0268          CALL INTR(IDIR,N3,N1,N2,IRCDN,IETYP)
0269          CALL INTR(IDIR,N3,N1,N2,ISCOD,IETYP)
0270          IF(IETYP)17,352,17
0271      352 IETYP=-1
0272          CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0273          IF(IETYP)17,51,17
0274       51 CALL EXEC(24,4,IFNAM,IPAKN,IRCDN,ISCOD,1,IETYP)
0275          GO TO 17
0276    C
0277    CDIRECTIVE /CLO,FNAME,USTAT
0278    C
0279    9     CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0280          CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0281          IF(IETYP)17,353,17
0282      353 IETYP=-1
0283          CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0284          IF(IETYP)17,37,17
0285       37 CALL EXEC(24,5,IFNAM,IUSTA,IETYP)
0286          GO TO 17
0287    C
0288    CDIRECTIVE /BRI,FNAME,SCODE
0289    C
0290    10    CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0291          CALL INTR(IDIR,N3,N1,N2,ISCOD,IETYP)
0292          IF(IETYP)17,354,17
0293      354 IETYP=-1
0294          CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0295          IF(IETYP)17,38,17
0296       38 CALL EXEC(24,10,2,IFNAM,0,0,ISTAT,IETYP)
0297          IF(IETYP)17,62,17
0298       62 IF(ISTAT(2))63,63,64
0299       64 IETYP=11
0300          GO TO 17
0301       63 ISTAT(2)=ISCOD
0302          CALL EXEC(24,10,3,IFNAM,ISTAT,0,ISTAT,IETYP)
0303          IF(IETYP)17,65,17
0304       65 IF(ISTAT(3))66,67,66
0305       66 IETYP=7
0306          GO TO 17
0307       67 CALL EXEC(24,10,1,IFNAM,ISTAT,1,ISTAT,IETYP)
0308          IF(IETYP)17,39,17
0309       39 WRITE(NTYP,506)ISTAT(6),ISTAT(10)
0310          READ(NTYP,503)(IDIR(I),I=1,72)
0311          CALL ASCEB(IDIR,1,72,IDIR,1,JATOE)
0312          N3=1
0313       45 IF(IDIR(N3)-40100B)41,42,41
0314       42 IF(N3-72)43,44,44
0315       43 N3=N3+1
0316          GO TO 45
0317       44 WRITE(NTYP,507)
0318          GO TO 39
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0319      41 IF(IDIR(N3)-60500B)46,47,46
0320      47 IF(IDIR(N3+1)-142500B)44,5,44
0321      46 N3=N3-1
0322         CALL INTR(IDIR,N3,N1,N2,IRCDN,IETYP)
0323         IF(IETYP)17,52,17
0324      52 IF(ISTAT(7)-512)49,49,54
0325      54 WRITE(NTYP,509)
0326         GO TO 5
0327      49 IF(ISTAT(10))55,71,55
0328      55 IFNAM(4)=020040B
0329         IFNAM(5)=020040B
0330         IFNAM(6)=020040B
0331         CALL EXEC(24,2,IFNAM(4),0,ISTAT(10),ISTAT(7),0,IETYP)
0332         IF(IETYP)17,56,17
0333      56 J=ISTAT(10)
0334         DO 61 I=1,J
0335         CALL EXEC(24,6,IFNAM,I,IBUFF,IETYP)
0336         IF(IETYP)70,58,70
0337      58 CALL EXEC(24,8,IFNAM(4),I,IBUFF,IETYP)
0338         IF(IETYP)70,61,70
0339      61 CONTINUE
0340         CALL EXEC(24,14,IETYP)
0341      71 CALL EXEC(24,3,IFNAM,ISTAT,ISCOD,IETYP)
0342         IF(IETYP)70,24,70
0343      24 CALL EXEC(24,2,IFNAM,ISTAT,IRCDN,ISTAT(7),ISCOD,IETYP)
0344         IF(IETYP)25,79,25
0345      25 IETYP=0
0346      75 CALL EXEC(24,11,ISTAT,IETYP)
0347         IF(IETYP)70,76,70
0348      76 CALL EXEC(24,2,IFNAM,ISTAT,IRCDN,ISTAT(7),ISCOD,IETYP)
0349         IF(IETYP)78,79,78
0350      79 ITEMP=0
0351         GO TO 73
0352      78 ITEMP=IETYP
0353         IETYP=0
0354         CALL EXEC(24,2,IFNAM,ISTAT,ISTAT(6),ISTAT(7),ISCOD,IETYP)
0355         IF(IETYP)70,73,70
0356      73 CALL EXEC(24,4,IFNAM,ISTAT,1,ISCOD,1,IERR)
0357         IF(ISTAT(10))68,82,68
0358      68 J=ISTAT(10)
0359         DO 72 I=1,J
0360         CALL EXEC(24,6,IFNAM(4),I,IBUFF,IETYP)
0361         IF(IETYP)70,69,70
0362      69 CALL EXEC(24,8,IFNAM,I,IBUFF,IETYP)
0363         IF(IETYP)89,72,89
0364      72 CONTINUE
0365      89 IETYP=0
0366         CALL EXEC(24,14,IETYP)
0367      82 IF(ITEMP)91,92,91
0368      91 IETYP=ITEMP
0369         GO TO 70
0370      92 CALL EXEC(24,10,1,IFNAM,ISTAT,1,ISTAT,IETYP)
0371         IF(IETYP)70,88,70
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0372      88 WRITE(NTYP,511)ISTAT(6),ISTAT(10)
0373      70 CALL EXEC(24,3,IFNAM(4),0,0,IERR)
0374         GO TO 17
0375  C
0376  CDIRECTIVE /STA,DF,FNAME,PAKNO
0377  C          /STA,FO,FNAME
0378  C          /STA,SC,FNAME,PAKNO,SCODE
0379  C          /STA,LR,FNAME,PAKNO
0380  C          /STA,LF,PAKNO
0381  C          /STA,NF,PAKNO,STATB
0382  C          /STA,AP
0383  C
0384      11 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0385         IF(IETYP)17,300,17
0386     300 DO 303 I=1,7
0387         IF(NEMTA(I)-IFNAM(1))303,302,303
0388     302 IFSTA=I
0389         GO TO 93
0390     303 CONTINUE
0391         IETYP=23
0392         GO TO 17
0393      93 GO TO(94,94,94,94,290,95,900)IFSTA
0394      95 CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0395         CALL INTR(IDIR,N3,N1,N2,ISTAT,IETYP)
0396      97 IF(IETYP)17,355,17
0397     355 IETYP=-1
0398         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0399         IF(IETYP)17,98,17
0400      98 CALL EXEC(24,10,IFSTA,IFNAM,IPAKN,IRCDN,ISTAT,IETYP)
0401         GO TO 17
0402      94 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0403         GO TO(290,97,290,290,290,290,290)IFSTA
0404     290 CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0405         IF(IFSTA-3)97,99,97
0406      99 CALL INTR(IDIR,N3,N1,N2,ISTAT(2),IETYP)
0407         GO TO 97
0408     900 CALL INTR(IDIR,N3,N1,N2,IFNAM,IETYP)
0409         CALL INTR(IDIR,N3,N1,N2,ISTAT,IETYP)
0410         GO TO 97
0411  C
0412  CDIRECTIVE /REP,PAKNO
0413  C
0414      12 CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0415         IF(IETYP)17,356,17
0416     356 IETYP=-1
0417         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0418         IF(IETYP)17,102,17
0419     102 CALL EXEC(24,11,IPAKN,IETYP)
0420         GO TO 17
0421  C
0422  CDIRECTIVE /COP,FNAME,PAKNO
0423  C
0424      13 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
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0425          CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0426          IF(IETYP)17,357,17
0427       357 IETYP=-1
0428          CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0429          IF(IETYP)17,103,17
0430       103 CALL EXEC(24,12,IFNAM,IPAKN,IETYP)
0431          GO TO 17
0432     C
0433     CDIRECTIVE /CHA,FNAM1,FNAM2,PAKNO,SCODE
0434     C
0435        14 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0436          CALL FNAME(IDIR,N3,N1,N2,IFNAM(4),IETYP,JATOE)
0437          CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0438          CALL INTR(IDIR,N3,N1,N2,ISCOD,IETYP)
0439          IF(IETYP)17,358,17
0440       358 IETYP=-1
0441          CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0442          IF(IETYP)17,116,17
0443       116 CALL EXEC(24,13,IFNAM,IPAKN,ISCOD,IETYP)
0444          GO TO 17
0445     C
0446     CDIRECTIVE /POS
0447     C
0448        15 CALL EXEC(24,14,IETYP)
0449          GO TO 17
0450     C
0451     C INITIALIZE MESSAGE
0452     C
0453       850 WRITE(NWRIT,851)IPAKN(1)
0454       851 FORMAT(" PACK# "I6" INITIALIZED")
0455          GO TO 5
0456     C
0457     C
0458     C CREATE MESSAGE
0459     C
0460       200 WRITE(NWRIT,515)(IFNAM(I),I=1,3)
0461       515 FORMAT(" FILE  "3A2," CREATED")
0462          IF(IPAKN)220,221,222
0463       220 WRITE(NWRIT,516)
0464       516 FORMAT(" THE FILE IS ON AN AVAILABLE PACK")
0465          GO TO 223
0466       221 WRITE(NWRIT,517)
0467       517 FORMAT(" THE FILE IS TEMPORARY IN WORK AREA")
0468          ISCOD(1)=0
0469          GO TO 223
0470       222 WRITE(NWRIT,518)IPAKN(1)
0471       518 FORMAT(" THE FILE IS ON PACK# "I6)
0472       223 WRITE(NWRIT,519)IFLGT
0473       519 FORMAT(" THE FILE LENGTH IS"I6," RECORDS")
0474          WRITE(NWRIT,520)IRLGT
0475       520 FORMAT(" THE RECORD LENGTH IS"I6," WORDS")
0476          WRITE(NWRIT,521)ISCOD(1)
0477       521 FORMAT(" THE SECURITY CODE IS"I6)
```

```
0478          WRITE(NWRIT,522)IUSTA
0479       522 FORMAT(" THE USER STATUS WORD IS"I6)
0480          GO TO 5
0481    C
0482    C DESTROY MESSAGE
0483    C
0484       201 WRITE(NWRIT,523)(IFNAM(I),I=1,3)
0485       523 FORMAT(" FILE  "2A2,A1," DESTROYED")
0486          GO TO 5
0487    C
0488    C OPEN MESSAGE
0489    C
0490       202 WRITE(NWRIT,524)(IFNAM(I),I=1,3)
0491       524 FORMAT(" FILE  "2A2,A1," OPENED")
0492          IF(IPAKN)228,229,230
0493       228 WRITE(NWRIT,516)
0494          GO TO 231
0495       229 WRITE(NWRIT,517)
0496          GO TO 231
0497       230 WRITE(NWRIT,518)IPAKN(1)
0498          GO TO 231
0499       231 WRITE(NWRIT,525)IRCDN
0500       525 FORMAT(" THE RECORD # IS"I6)
0501          WRITE(NWRIT,521)ISCOD(1)
0502          GO TO 5
0503    C
0504    C CLOSE MESSAGE
0505    C
0506       203 WRITE(NWRIT,527)(IFNAM(I),I=1,3)
0507       527 FORMAT(" FILE  "2A2,A1," CLOSED")
0508          WRITE(NWRIT,522)IUSTA
0509          GO TO 5
0510    C
0511    C BRIEF MESSAGE
0512    C
0513       204 GO TO 5
0514    C
0515    C
0516    C STATUS MESSAGE
0517    C
0518       205 GO TO(232,232,232,232,661,232,238)IFSTA
0519       232 WRITE(NWRIT,528)(IFNAM(I),I=1,3)
0520       528 FORMAT(" FILE  "2A2,A1," STATUS")
0521          GO TO(237,660,237,237,661,237,238)IFSTA
0522       660 IF(ISTAT(2))239,239,245
0523       661 IF(IPAKN)662,663,664
0524       662 WRITE(NWRIT,665)ISTAT(1)
0525       665 FORMAT(" FOR PACK # "I6)
0526          GO TO 236
0527       663 WRITE(NWRIT,666)
0528       666 FORMAT(" FOR WORK AREA")
0529          GO TO 236
0530       664 WRITE(NWRIT,665)IPAKN(1)
```

```
0531          GO TO 236
0532       237 IF(IPAKN)239,240,241
0533       239 WRITE(NWRIT,518)ISTAT(1)
0534          GO TO 242
0535       240 WRITE(NWRIT,517)
0536          GO TO 242
0537       241 WRITE(NWRIT,518)IPAKN(1)
0538       242 GO TO(233,244,235,236,236,243)IFSTA
0539     C
0540     C
0541       233 ISCCT=IAND(ISTAT(5),377B)
0542          ISTAT(5)=ISTAT(5)-ISCCT
0543          ITRAK=IAND(ISTAT(5)/256,377B)
0544          WRITE(NWRIT,530)ITRAK
0545       530 FORMAT(" STARTING TRACK # IS "I6)
0546          WRITE(NWRIT,531)ISCCT
0547       531 FORMAT(" STARTING SECTOR # IS "I6)
0548          WRITE(NWRIT,519)ISTAT(6)
0549          WRITE(NWRIT,520)ISTAT(7)
0550          WRITE(NWRIT,522)ISTAT(9)
0551          WRITE(NWRIT,534)ISTAT(10)
0552       534 FORMAT(" HIGHEST RECORD # ACCESSED IS "I6)
0553          GO TO 5
0554     C
0555     C
0556       244 WRITE(NWRIT,535)
0557       535 FORMAT(" FILE IS OPEN")
0558          GO TO 5
0559       245 WRITE(NWRIT,536)
0560       536 FORMAT(" FILE IS NOT OPEN")
0561          GO TO 5
0562     C
0563     C
0564       235 WRITE(NWRIT,521)ISTAT(2)
0565          IF(ISTAT(3))246,246,247
0566       246 WRITE(NWRIT,537)
0567       537 FORMAT(" CODE CHECKS")
0568          GO TO 5
0569       247 WRITE(NWRIT,538)
0570       538 FORMAT(" CODE DOES NOT CHECK")
0571          GO TO 5
0572     C
0573     C
0574       236 WRITE(NWRIT,539)ISTAT(2)
0575       539 FORMAT(" # OF AVAILABLE SECTORS IS "I6)
0576          GO TO 5
0577     C
0578     C
0579       243 WRITE(NWRIT,540)ISTAT(1)
0580       540 FORMAT(" FILE # "I6" IN THE DIRECTORY")
0581          GO TO 5
0582     C
0583     C
```

```
0584     238 IF (IFNAM)250,541,250
0585     541 WRITE(NWRIT,248)IPAKN(1)
0586     248 FORMAT(" PACK# "I6" IS AVAILABLE AND INITIALIZED")
0587         GO TO 5
0588     250 WRITE(NWRIT,860)IPAKN(1)
0589     860 FORMAT(" PACK# "I6" IS AVAILABLE BUT NOT INITIALIZED")
0590         GO TO 5
0591   C
0592   C REPACK MESSAGE
0593   C
0594     206 IF(IPAKN)251,5,253
0595     251 WRITE(NWRIT,542)
0596     542 FORMAT(" ALL PACKS AVAILABLE REPACKED")
0597         GO TO 5
0598     253 WRITE(NWRIT,543)IPAKN(1)
0599     543 FORMAT(" PACK "I6" REPACKED")
0600         GO TO 5
0601   C
0602   C COPY MESSAGE
0603   C
0604     207 WRITE(NWRIT,544)(IFNAM(I),I=1,3)
0605     544 FORMAT(" FILE  "3A2" COPIED")
0606         IF(IPAKN(1))257,258,259
0607     257 IPAKN(1)=-IPAKN(1)
0608         GO TO 259
0609     258 WRITE(NWRIT,517)
0610         GO TO 5
0611     259 WRITE(NWRIT,518)IPAKN(1)
0612         GO TO 5
0613   C
0614   C CHANGE FILE NAME MESSAGE
0615   C
0616     208 WRITE(NWRIT,546)(IFNAM(I),I=1,3)
0617     546 FORMAT(" FILE  "2A2,A1," OLD FILE")
0618         WRITE(NWRIT,547)(IFNAM(I),I=4,6)
0619     547 FORMAT(" FILE  "2A2,A1," NEW FILE")
0620         IF(IPAKN(1))260,261,262
0621     260 WRITE(NWRIT,516)
0622         GO TO 263
0623     261 WRITE(NWRIT,517)
0624         GO TO 263
0625     262 WRITE(NWRIT,518)IPAKN(1)
0626     263 WRITE(NWRIT,521)ISCOD(1)
0627         GO TO 5
0628   C
0629   C POST MESSAGE
0630   C
0631     209 WRITE(NWRIT,548)
0632     548 FORMAT(" ALL FILES POSTED")
0633         GO TO 5
0634   C
0635   CDIRECTIVE /REA,FNAME,RCDNO,PAKNO
0636   C
```

```
0637  C RECORD CONTENTS WILL APPEAR ON LIST OUTPUT DEVICE IN OCTAL
0638  C RECORDS MUST BE 512 WORDS OR LESS
0639  C
0640     400 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0641         CALL INTR(IDIR,N3,N1,N2,IRCDN,IETYP)
0642         CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0643         IF(IETYP)17,359,17
0644     359 IETYP=-1
0645         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0646         IF(IETYP)17,403,17
0647     403 CALL EXEC(24,10,1,IFNAM,IPAKN,IRCDN,ISTAT,IETYP)
0648         IF(IETYP)17,405,17
0649     405 IF(ISTAT(7)-512)406,406,407
0650     407 WRITE(NTYP,509)
0651         GO TO 5
0652     406 CALL FILL(IBUFF,1,512,040B)
0653         CALL EXEC(24,6,IFNAM,IRCDN,IBUFF,IETYP)
0654         IF(IETYP)17,408,17
0655     408 WRITE(NWRIT,549)(IFNAM(I),I=1,3),IRCDN
0656         I=1
0657     409 ISTAT(7)=ISTAT(7)-8
0658         I=I+8
0659     410 K1=I+7
0660         WRITE(NWRIT,550)(IBUFF(J),J=1,8)
0661         IF(ISTAT(7))5,5,411
0662     411 CALL MOVER(IBUFF,I,K1,IBUFF,1)
0663         GO TO 409
0664  C
0665  CDIRECTIVE /WRI,FNAME,RCDNO,LOGUN
0666  C
0667  C BUFFER CONTENTS WILL BE FILLED FROM THE DEVICE SPECIFIED
0668  C BY THE LOGICAL UNIT #.UP TO 512 WORDS WILL ENTER THE BUFFER,8
0669  C WORDS AT A TIME IN OCTAL FORMAT.A 000072000072
0670  C IS THE DELIMITER IF LESS THAN 512 WORDS ARE ENTERED
0671  C
0672     450 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0673         CALL INTR(IDIR,N3,N1,N2,IRCDN,IETYP)
0674         CALL INTR(IDIR,N3,N1,N2,ILOGU,IETYP)
0675         IF(IETYP)17,360,17
0676     360 IETYP=-1
0677         CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0678         IF(IETYP)17,452,17
0679     452 CALL FILL(IBUFF,1,512,040B)
0680         I=1
0681     458 CALL FILL(IDIR,1,8,040B)
0682         READ(ILOGU,551)(IDIR(J),J=1,8)
0683         IF(IDIR(1)-072B)455,456,455
0684     455 CALL MOVER(IDIR,1,8,IBUFF,I)
0685         IF(I-512)460,457,457
0686     460 I=I+8
0687         GO TO 458
0688     456 IF(IDIR(2)-072B)455,457,455
0689     457 CALL EXEC(24,8,IFNAM,IRCDN,IBUFF,IETYP)
```

```
0690        IF(IETYP)17,700,17
0691    700 CALL EXEC(24,14,IETYP)
0692        GO TO 17
0693    501 FORMAT(" /CRE,FNAME,PAKNO,FLGTH,RLGTH,SCODE,USTAT"/" /DES,FNAME,
0694       1KNO,SCODE"/" /OPE,FNAME,PAKNO,RCDNO,SCODE"/" /CLO,FNAME,USTAT"/
0695       2" /INI,PAKNO,DIRSZ"/" /RES,FNAME,PAKNO,RCDNO"/
0696       3" /STA,DF,FNAME,PAKNO"/" /STA,FO,FNAME"/
0697       4" /STA,SC,FNAME,PAKNO,SCODE"/" /STA,LR,FNAME,PAKNO"/
0698       5" /STA,LF,PAKNO"/" /STA,NF,PAKNO,STATB"/" /STA,AP,FNAME,STATB"/
0699       6" /REP,PAKNO"/" /COP,FNAME,PAKNO"/" /CHA,FNAM1,FNAM2,PAKNO,SCODE
0700       7" /POS"/" /BRI,FNAME,SCODE"/" /END")
0701    502 FORMAT("UTIL READY")
0702    503 FORMAT(72R1)
0703    507 FORMAT(" ILLEGAL OPERATION")
0704    504 FORMAT(" ERROR # "I6)
0705    552 FORMAT(" FILE  "2A2,A1," ALREADY OPEN")
0706    505 FORMAT(" ILLEGAL RECORD #,TRY PACK # "I6)
0707    506 FORMAT(" AVAILABLE RECS. ="I6" RECORDS USED = "I6/" NEW RECORD C
0708       1NT?")
0709    508 FORMAT(" TOO BIG")
0710    509 FORMAT(" RECORD SIZE TOO BIG")
0711    510 FORMAT(" "I6" CONSECUTIVE TRACK NOT AVAILABLE")
0712    511 FORMAT(" AVAILABLE RECS. ="I6" RECORDS USED = "I6)
0713    512 FORMAT(" WHICH FILES?")
0714    513 FORMAT(" ERROR ON ENTRY "I6)
0715    514 FORMAT(" ERROR,TOO MANY FILES")
0716    549 FORMAT(" FILE  "2A2,A1," RECORD # "I6/)
0717    550 FORMAT(8(" "K6))
0718    551 FORMAT(8K6)
0719    620 CALL FNAME(IDIR,N3,N1,N2,IFNAM,IETYP,JATOE)
0720        CALL PKNUM(IDIR,N3,N1,N2,IPAKN,IETYP)
0721        CALL INTR(IDIR,N3,N1,N2,IRCDN,IETYP)
0722        IF(IETYP)17,361,17
0723    361 IETYP=-1
0724        CALL INTR(IDIR,N3,N1,N2,IUSTA,IETYP)
0725        IF(IETYP)17,621,17
0726    621 CALL EXEC(24,9,IFNAM,IPAKN,IRCDN,IETYP)
0727        GO TO 17
0728    650 WRITE(NWRIT,655)(IFNAM(I),I=1,3)
0729    655 FORMAT(" FILE  "2A2,A1," RESET")
0730        IF(IPAKN(1))651,652,653
0731    651 WRITE(NWRIT,516)
0732        GO TO 654
0733    652 WRITE(NWRIT,517)
0734        GO TO 654
0735    653 WRITE(NWRIT,518)IPAKN(1)
0736    654 WRITE(NWRIT,525)IRCDN
0737        GO TO 5
0738        END
```

/** NO ERRORS*

```
0739          END$
```

```
 01                    ASMB,L,B
*  NO ERRORS*
```

```
)01                     ASMB,L,B
)02  00000                    NAM FILL,7
)03                            ENT FILL
)04                            EXT .ENTR
)05* FILL COMMERCIAL SUBROUTINE PACKAGE
)06* CALL FILL(JCARD,J,JLAST,NCH)
)07* THE WORDS JCARD(J) THROUGH JCARD(JLAST)
)08* ARE FILLED WITH THE CHARACTER AT LOCATION NCH.
)09*
)10* JCARD  =ADDRESS OF INTEGER ARRAY
)11* JCARD+1=ADDRESS OF J
)12* JCARD+2=ADDRESS OF JLAST
)13* JCARD+3=ADDRESS OF NCH
)14  00000 000000  JCARD BSS 4
)15  00004 000000  FILL  NOP
)16  00005 016001X        JSB .ENTR      TRANSFER
)17  00006 000000R        DEF JCARD      PARAMETERS
)18  00007 003400         CCA           GET MINUS ONE IN (A)
)19  00010 142001R        ADA JCARD+1,I  ACCUM= J-1
)20  00011 042000R        ADA JCARD      CREATE ADDRESS OF JCARD(J)
)21  00012 072000R        STA JCARD
)22* COMPUTE FIELD WIDTH
)23  00013 162001R        LDA JCARD+1,I GET VALUE OF J
)24  00014 003004         CMA,INA        AND MAKE MINUS (-J)
)25  00015 142002R        ADA JCARD+2,I JLAST-J+1
)26  00016 002004         INA            ACCUM=FIELD WIDTH
)27  00017 002003         SZA,RSS
)28  00020 026022R        JMP NEG1  0---NEGATIVE OR
)29  00021 002020         SSA      NOT0-- ZERO--
)30  00022 002404  NEG1   CLA,INA NOT0-- MAKE FIELD WIDTH = ONE.
)31  00023 003004         CMA,INA    0--- AND
)32  00024 070001         STA 1           STORE -FIELD WIDTH IN ACCUM B
)33* JNOW=J
)34  00025 162003R        LDA JCARD+3,I  GET FILL CHARACTER-NCH
)35* JCARD(JNOW)=NCH
)36  00026 172000R MORE   STA JCARD,I    STORE FILL CHARACTER IN JCARD(JN
)37* SEE IF JNOW IS LESS THAN JLAST.
)38* IF YES, JNOW=JNOW+1 AND GO BACK FOR MORE.
)39* IF NO, EXIT.
)40  00027 036000R        ISZ JCARD       INCREASE EFFECTIVE ADDRESS AND
)41  00030 006006         INB,SZB         CHECK IF I IS LESS THAN JLAST
)42  00031 026026R        JMP MORE      NO, GO BACK FOR MORE.
)43  00032 126004R        JMP FILL,I     YES,EXIT.......
)44                       END
*  NO ERRORS*
```

```
0001  FTN,L,B
0002  C SUBROUTINE FNAME
0003  C CALLING SEQUENCE:
0004  C CALL FNAME(JCARD,J,K,KLAST,KCARD,IETYP,JATOE)
0005  C
0006  C PURPOSE: FNAME PACKS THE CHARACTERS FROM N1 TO N2,2 CHARACTERS PER
0007  C  WORD. IF 2 CONSECUTIVE COMMAS OCCUR, IETYP =20, OTHERWISE IETYP=0.
0008        SUBROUTINE FNAME(JCARD,J,K,KLAST,KCARD,IETYP,JATOE)
0009        DIMENSION JCARD(1),KCARD(1),JATOE(1)
0010        DATA LCB/0/
0011        IF(IETYP)1,2,1
0012      1 RETURN
0013      2 J=J+1
0014        IF(JCARD(J)-40100B)3,4,3
0015      4 IF(J-72)2,5,5
0016      5 IETYP=20
0017        RETURN
0018      3 IF(JCARD(J)-65500B)6,5,6
0019      6 K=J
0020      8 J=J+1
0021        IF(JCARD(J)-65500B)7,20,7
0022      7 IF(J-72)8,20,20
0023     20 KLAST=J-1
0024        N=KLAST-K+1
0025        CALL FILL(KCARD,1,3,020040B)
0026        CALL EBASC(JCARD,K,KLAST,JCARD,K,JATOE)
0027        IF(N-5)9,9,10
0028     10 KLAST=K+4
0029      9 N=K
0030        I=1
0031     15 KCARD(I)=256*JCARD(N)
0032        IF(N-KLAST)11,12,12
0033     12 KCARD(I)=KCARD(I)+040B
0034        RETURN
0035     11 N=N+1
0036        KCARD(I)=JCARD(N)+KCARD(I)
0037        IF(N-KLAST)13,14,14
0038     14 RETURN
0039     13 N=N+1
0040        I=I+1
0041        GO TO 15
0042        END
```

** NO ERRORS*

```
0043          END$
```

```
0001  FTN,L,B
0002  CFUNCTION NCOMP
0003  CFUNCTION-TWO VARIABLE-LENGTH DATA FIELDS ARE COMPARED,AND THE RESULT
0004  CSET TO A NEGATIVE NUMBER,ZERO,OR A POSITIVE NUMBER,THIS IS A FUNCTION
0005  CSUBPROGRAM.
0006  C
0007  CCALLING SEQUENCE-
0008  C
0009  CNCOMP(JCARD,J,JLAST,KCARD,K)
0010        FUNCTION NCOMP(JCARD,J,JLAST,KCARD,K)
0011        DIMENSION JCARD(1),KCARD(1)
0012        DATA LCB/0/
0013        JNOW=J
0014      1 KNOW=K+JNOW-J
0015        NCOMP=JCARD(JNOW)/16-KCARD(KNOW)/16
0016        IF(NCOMP)3,2,3
0017      2 JNOW=JNOW+1
0018        IF(JNOW-JLAST)1,1,3
0019      3 RETURN
0020        END
```

** NO ERRORS*

```
0021          END$
```

```
0001  FTN,L,B
0002  CSUBROUTINE A1DEC
0003  C
0004  CFUNCTION-CONVERTS A FIELD FROM A1 FORMAT,ONE DIGIT PER WORD,
0005  CTO DECIMAL FORMAT,RIGHT-JUSTIFIED,ONE DIGIT PER WORD.
0006  C
0007  CCALLING SEQUENCE-
0008  C
0009  CCALL A1DEC(JCARD,J,JLAST,NER)
0010        SUBROUTINE A1DEC(JCARD,J,JLAST,NER)
0011        DIMENSION JCARD(1)
0012        DATA LCB/0/
0013  CISOLATE THE SIGN IN JSIGN
0014        JSIGN=0
0015        CALL NZONE(JCARD,JLAST,4,JSIGN)
0016        JNOW=J
0017      1 JTEST=JCARD(JNOW)
0018  C IS JTEST LESS THAN ZERO
0019        IF(JTEST)2,3,3
0020  CIS JTEST EQUAL TO AN EBCDIC BLANK
0021      3 IF(JTEST-40100B)4,5,4
0022  CIS JTEST LESS THAN -4032
0023      2 IF(JTEST+4032)4,6,6
0024  CSET ERROR CONDITION AT THIS CHARACTER
0025      4 NER=JNOW
0026        GO TO 7
0027  CSET JTEST EQUAL TO AN EBCDIC ZERO
0028      5 JTEST=170100B
0029  CCONVERT CHARACTER TO ITS DECIMAL EQUIVALENT
0030      6 JCARD(JNOW)=(JTEST+4032)/256
0031      7 IF (JNOW-JLAST)8,9,9
0032      8 JNOW=JNOW+1
0033        GO TO 1
0034  CIF THE SIGN IS NEGATIVE,MAKE THE LAST DECIMAL DIGIT NEGATIVE
0035      9 IF(JSIGN-2)11,10,11
0036     10 JCARD(JLAST)=-JCARD(JLAST)-1
0037     11 RETURN
0038        END

**  NO ERRORS*
```

```
0039        END$
```

```
0001   FTN,L,B
0002   CSUBROUTINE MOVE
0003   CFUNCTION-MOVES DATA FROM ONE ARRAY TO ANOTHER ARRAY
0004   C
0005   CCALLING SEQUENCE-
0006   C
0007   CCALL MOVE(JCARD,J,JLAST,KCARD,K)
0008         SUBROUTINE MOVER(JCARD,J,JLAST,KCARD,K)
0009         DIMENSION JCARD(1),KCARD(1)
0010         DATA LCB/0/
0011         JNOW=J
0012       1 KNOW=K+JNOW-J
0013         KCARD(KNOW)=JCARD(JNOW)
0014         IF(JNOW-JLAST)2,3,3
0015       2 JNOW=JNOW+1
0016         GO TO 1
0017       3 RETURN
0018         END
```

** NO ERRORS*

```
0019        END$
```

```
0001  FTN,L,B
0002  C SUBROUTINE EBASC
0003  C FUNCTION-TO CONVERT AN ARRAY FROM A1 FORMAT(EBCDIC)TO ASCII.
0004  C
0005  C CALLING SEQUENCE-
0006  C
0007  C CALL EBASC(JCARD,J,JLAST,KCARD,K,JATOE)
0008  C
0009        SUBROUTINE EBASC(JCARD,J,JLAST,KCARD,K,JATOE)
0010        DIMENSION JCARD(1),KCARD(1),JATOE(1)
0011        DATA LCB/0/
0012        JNOW=J
0013      1 KNOW=K+JNOW-J
0014        DO 2 I=1,62
0015        IF(JCARD(JNOW)-JATOE(I))2,3,2
0016      2 CONTINUE
0017      4 KCARD(KNOW)=40B
0018        GO TO 5
0019      3 KCARD(KNOW)=I+37B
0020        IF(KCARD(KNOW)-42B)5,4,5
0021      5 IF(JNOW-JLAST)6,7,7
0022      6 JNOW=JNOW+1
0023        GO TO 1
0024      7 RETURN
0025        END
```

** NO ERRORS*

```
0026          END$
```

```
0001  FTN,L,B
0002  CSUBROUTINE ASCEB
0003  CFUNCTION-TO CONVERT AN ARRAY FROM ASCII TO A1 FORMAT(EBCDIC).
0004  C
0005  CCALLING SEQUENCE-
0006  C
0007  CCALL ASCEB(JCARD,J,JLAST,KCARD,K,JATOE)
0008  C
0009        SUBROUTINE ASCEB(JCARD,J,JLAST,KCARD,K,JATOE)
0010        DIMENSION JCARD(1),KCARD(1),JATOE(1)
0011        DATA LCB/0/
0012        JNOW=J
0013      1 KNOW=K+JNOW-J
0014        IF(JCARD(JNOW)-40B)4,2,2
0015      2 IF(JCARD(JNOW)-135B)3,3,4
0016      3 JTEST=JCARD(JNOW)-37B
0017        KCARD(KNOW)=JATOE(JTEST)
0018        GO TO 5
0019      4 KCARD(KNOW)=40100B
0020      5 IF(JNOW-JLAST)6,7,7
0021      6 JNOW=JNOW+1
0022        GO TO 1
0023      7 RETURN
0024        END
```

** NO ERRORS*

```
0025          END$
```

```
0001  FTN,L,B
0002        SUBROUTINE NZONE(JCARD,J,NEWZ,NOLDZ)
0003        DIMENSION JCARD(1)
0004        DATA LCB/0/
0005        JTEST=JCARD(J)
0006        IF(JTEST)10,20,20
0007     10 IF(JTEST-1701008)21,11,21
0008     11 IF(NEWZ-2)13,12,13
0009     12 JCARD(J)=601008
0010     13 NOLDZ=4
0011     14 RETURN
0012     20 IF(JTEST-601008)21,30,21
0013     21 NOLDZ=5+(JTEST-4096)/4096
0014        IF(NOLDZ-5)22,14,14
0015     22 IF(NEWZ-5)23,14,14
0016     23 JCARD(J)=JTEST+4096*(NEWZ-NOLDZ)
0017        GO TO 14
0018     30 NOLDZ=2
0019        IF(NEWZ-4)14,31,14
0020     31 JTEST=1501008
0021        GO TO 23
0022        END
```

** NO ERRORS*

```
0023          END$
```

```
0001  FTN,L,B
0002  C SUBROUTINE INTR
0003  C CALLING SEQUENCE: CALL INTR(JCARD,J,K,KLAST,KCARD,IETYP)
0004  C
0005  C PURPOSE: INTR FORMS AN INTEGER FROM THE JCARD FIELD FROM POSITIONS I
0006  C          TO KLAST. IF THE INTEGER FORMED IS NOT IN THE RANGE -32768
0007  C          TO 32767,IETYP IS SET TO 20.
0008  C
0009        SUBROUTINE INTR(JCARD,J,K,KLAST,KCARD,IETYP)
0010        DIMENSION JCARD(1),KCARD(1)
0011        DATA LCB/0/
0012        IF(IETYP)30,2,1
0013     30 IF(J-72)31,32,32
0014     31 IETYP=20
0015        GO TO 1
0016     32 IETYP=0
0017      1 RETURN
0018      2 J=J+1
0019        IF(J-72)4,4,5
0020      4 IF(JCARD(J)-40100B)3,2,3
0021      5 IETYP=20
0022        RETURN
0023      3 IF(JCARD(J)-60100B)7,6,7
0024      6 JSIGN=-1
0025        J=J+1
0026        GO TO 8
0027      7 JSIGN=1
0028      8 K=J
0029     12 IF(JCARD(J)-65500B)10,9,10
0030     10 IF(J-72)11,13,13
0031     11 J=J+1
0032        GO TO 12
0033     13 KLAST=J
0034        GO TO 14
0035      9 KLAST=J-1
0036     14 IF(JCARD(KLAST)-40100B)15,16,15
0037     16 IF(K-KLAST)17,5,5
0038     17 KLAST=KLAST-1
0039        GO TO 14
0040     15 IF(JCARD(KLAST)-170100B)33,18,18
0041     18 CALL A1DEC(JCARD,K,KLAST,IETYP)
0042        IF(IETYP)33,19,33
0043     33 IETYP=23
0044        RETURN
0045     19 N=0
0046        N1=KLAST
0047        KCARD=0
0048     23 KCARD=JCARD(N1)*(10**N)+KCARD
0049        IF(KCARD)5,20,20
0050     20 IF(K-N1)21,22,22
0051     22 KCARD=KCARD*JSIGN
0052        RETURN
0053     21 N=N+1
```

```
0054          N1=N1-1
0055          IF(N-4)23,24,5
0056       24 IF(JCARD(N1)-3)23,23,5
0057          END
```

** NO ERRORS*

```
0058          END$
```

```
0001  FTN,L,B
0002  C SUBROUTINE PAKNO
0003  C CALLING SEQUENCE:
0004  C CALL PAKNO(JCARD,J,K,KLAST,KCARD,IETYP)
0005  C
0006  C PURPOSE: PAKNO RETURNS THE PACK NUMBER SPECIFIED IN THE JCARD FIELD.
0007  C          VALID NUMBERS ARE 0,1-999,AND(-1)-(-999).IF ANY OTHER
0008  C          NUMBER APPEARS,IETYP IS SET TO 20.
0009  C
0010        SUBROUTINE PKNUM(JCARD,J,K,KLAST,KCARD,IETYP)
0011        DIMENSION JCARD(1),KCARD(1)
0012        DATA LCB/0/
0013        IF(IETYP)1,2,1
0014      1 RETURN
0015      2 CALL INTR(JCARD,J,K,KLAST,KCARD,IETYP)
0016        IF(IETYP)1,3,1
0017      3 IF(KCARD)4,1,6
0018      4 IF(KCARD+999)5,1,1
0019      5 IETYP=20
0020        RETURN
0021      6 IF(KCARD-999)1,1,5
0022        END
```

** NO ERRORS*

```
0023          END$
```

```
0001                    ASMB,R,L,C,X,B      $EX31
**  NO ERRORS*
```

```
0001                    ASMB,R,L,C,X,B      $EX31
0003  00000                     NAM $EX31,1
0004                            ENT $EX31
0005                            EXT ERROR, EFCON
0006                            EXT FTRBE,NXPTL,PNEAD,APN00,DESIZ,DPNO
0007                            EXT ASBUF
0008                            EXT NOTRB,NSUWA,WPTRB,NXOTL,NXTFP
0009                            EXT OPNTB,STSWA,TRBUF,TRBSZ,ARGP1,DPNO
0010                            EXT OPNT1,PAKSC,TRKIO,$ECIO,CNAME,NOSEC
0011                            EXT OPNSZ,OPNTE,MOVCT,GNS,GSC
0012                            EXT VALSU
0013                            EXT MASUB



0015  00000           $EX31 EQU *
0016  00000 000000          NOP             DUMMY
0017  00001 064043          LDB MD8
0018  00002 076034X         STB MOVCT       INITIALIZE NO. WORDS TO MOVE
0019  00003 062023X         LDA ARGP1       ADDR. OF SOURCE
0020  00004 066126R         LDB AARG1       ADDR. OF DESTINATION
0021  00005 017634R         JSB MOVE        MOVE THE ARRAY
0022  00006 162130R         LDA ARG2,I
0023  00007 042011R         ADA AJMPT       ADDR. OF JUMP TABLE
0024  00010 124000          JMP A,I         EXECUTE PROPER FUNCTION
0025  00011 100011R AJMPT   DEF JMPTB-1,I
0026  00012           JMPTB EQU *           JUMP TABLE
0027  00012 000021R         DEF FUN01       FUNCTION 1
0028  00013 000174R         DEF FUN02       FUNCTION 2
0029  00014 000453R         DEF FUN03       FUNCTION 3
0030  00015 000716R         DEF FUN04
0031  00016 001166R         DEF FUN05
0032  00017 000002X         DEF EFCON
0033  00020 001505R         DEF FUN07
```

```
0035*
0036*     DEFINE FUNCTION
0037*
0038  00021          FUN01 EQU *          FUNCTION 1
0039  00021 002400        CLA            INVALID SETUP SO FAR
0040  00022 072037X       STA VALSU      VALUE SETUP FLAG
0041  00023 062131R       LDA ARG3       OPNTB
0042  00024 166132R       LDB ARG4,I     OPNSZ
0043  00025 006003        SZB,RSS        VALID SIZE TABLE?
0044  00026 016057R       JSB ER23       NO
0045  00027 006020        SSB
0046  00030 016057R       JSB ER23
0047  00031 007000        CMB
0048  00032 046120R       ADB D128
0049  00033 006021        SSB,RSS        .GE.?
0050  00034 016057R       JSB ER23       NO
0051  00035 166132R       LDB ARG4,I     OPNSZ
0052  00036 017722R       JSB CKCLM      CHECK CORE LIMIT
0053  00037 016024R       JSB ER9        OUT-OF-BOUNDS
0054  00040 072017X       STA OPNTB      SAVE POINTER TO OPEND TABLE
0055  00041 072004X       STA NXPTL      NEXT AVAILABLE PACK NO. ENTRY
0056  00042 076032X       STB OPNSZ      SAVE SIZE OF OPENED TABLE
0057  00043 040001        ADA B
0058  00044 040052        ADA MD1        CALCULATE END ADDR.
0059  00045 072033X       STA OPNTE      END OF OPEN TABLE
0060  00046 062134R       LDA ARG6       GET ADDR OF NO. OF PACK NO.'S
0061  00047 002004        INA
0062  00050 160000        LDA A,I        GET NO. OF PACK NO.'S
0063  00051 002020        SSA            NEGATIVE ?
0064  00052 016057R       JSB ER23       YES
0065  00053 064057        LDB D4
0066  00054 017771R       JSB MPY        CALC. SIZE OF PACK NO. AREA
0067  00055 042017X       ADA OPNTB      START OF TRB ENTRY
0068  00056 072003X       STA FTRBE      SAVE START OF TRB ENTRY
0069  00057 006002        SZB            OVERFLOW ?
0070  00060 016057R       JSB ER23       YES
0071  00061 162134R       LDA ARG6,I     NOTRB
0072  00062 002003        SZA,RSS
0073  00063 016054R       JSB ER19
0074  00064 002020        SSA
0075  00065 016054R       JSB ER19
0076  00066 072012X       STA NOTRB      NO. OF TEMP. RECD. BUFFERS
0077  00067 064056        LDB D3
0078  00070 017771R       JSB MPY        CALC. NO. WDS. USED ON OPNTB
0079  00071 042003X       ADA FTRBE      START OF OPEN TABLE
0080  00072 072015X       STA NXOTL      NEXT OPEN TABLE LOC.
0081  00073 072024X       STA OPNT1      START OF OPENED TABLE
0082  00074 042123R       ADA WPOTE      ADD ENOUGH FOR 1 OPEN ENTRY
0083  00075 006002        SZB            OVERFLOW?
0084  00076 016057R       JSB ER23       YES
0085  00077 003004        CMA,INA
0086  00100 042033X       ADA OPNTE      END OF OPEN TABLE
0087  00101 002020        SSA            ENOUGH ROOM
0088  00102 016057R       JSB ER23       NO
0089  00103 062120R       LDA D128       WDS/SECT.
0090  00104 166135R       LDB ARG7,I     TRBSZ
```

```
0091  00105 006003          SZB,RSS
0092  00106 016057R         JSB ER23
0093  00107 006020          SSB
0094  00110 016057R         JSB ER23
0095  00111 054054          CPB D1
0096  00112 016057R         JSB ER23
0097  00113 076022X         STB TRBSZ       SAVE TEMP. RCD. BUFF. SIZE
0098  00114 017771R         JSB MPY         CONVERT SECTORS TO WORDS
0099  00115 006002          SZB
0100  00116 016057R         JSB ER23
0101  00117 002020          SSA
0102  00120 016057R         JSB ER23
0103  00121 072014X         STA WPTRB       WORDS IN 1 TRB
0104  00122 066012X         LDB NOTRB
0105  00123 017771R         JSB MPY         CALC. TOTAL WDS. IN TRB
0106  00124 006002          SZB
0107  00125 016057R         JSB ER23
0108  00126 002020          SSA
0109  00127 016057R         JSB ER23
0110  00130 072125R         STA TWTRB       TOTAL WORDS IN TRB'S
0111  00131 064000          LDB A
0112  00132 062133R         LDA ARG5        POINTER TO TRB
0113  00133 017722R         JSB CKCLM       CHECK CORE LIMITS
0114  00134 016024R         JSB ER9         OUT-OF-BOUNDS
0115  00135 072021X         STA TRBUF
0116  00136 003004          CMA,INA
0117  00137 042033X         ADA OPNTE       END OF OPEN TABLE
0118  00140 002020          SSA             TRBUF .GT. OPNTE
0119  00141 026150R         JMP TRBOK       YES, NO OVERLAP
0120  00142 062021X         LDA TRBUF       ADDR. OF TRB
0121  00143 042125R         ADA TWTRB       CALC. END OF TRB
0122  00144 003004          CMA,INA         +1
0123  00145 042017X         ADA OPNTB       START OF OPEN TABLE
0124  00146 002020          SSA             END OF TRBUF .LT. OPNTB
0125  00147 016057R         JSB ER23        NO, THEN OVERLAP
0126  00150           TRBOK EQU *
0127  00150 062012X         LDA NOTRB       NO. TRB
0128  00151 064056          LDB D3
0129  00152 017771R         JSB MPY         CALC. NO. WDS. USED IN OPNTB
0130  00153 003004          CMA,INA
0131  00154 066003X         LDB FTRBE       GET START OF FIRST TRB ENTRY
0132  00155 017741R         JSB STZ         ZERO OUT TRB ENTRY AREA
0133  00156 062012X         LDA NOTRB
0134  00157 003004          CMA,INA
0135  00160 072173R         STA DEFIN       SET UP INDEX
0136  00161 062021X         LDA TRBUF       START OF TRB
0137  00162 066003X         LDB FTRBE       GET START OF FIRST TRB ENTRY
0138  00163 170001          STA B,I         SET UP POINTER TO EACH TRB
0139  00164 044056          ADB D3          BIAS FOR NEXT POINTER
0140  00165 042014X         ADA WPTRB       NO. WDS/TRB
0141  00166 036173R         ISZ DEFIN       FINISHED W/ ALL OF TRB POINTERS
0142  00167 026163R         JMP *-4         NO
0143  00170 003400          CCA             VALID SETUP
0144  00171 072037X         STA VALSU       VALID SETUP FLAG
0145  00172 026002X         JMP EFCON       RETURN TO MAIN
0146  00173 000000  DEFIN OCT 0             TEMP STORAGE
```

```
0148*
0149*     CREATE FUNCTION
0150*
0151  00174           FUN02 EQU *          FUNCTION 2
0152  00174 017645R         JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0153  00175 017661R         JSB CKNAP      CHECK NAME AND PACK NO.
0154  00176 002003          SZA,RSS        PN000 ?
0155  00177 026254R         JMP SSUBC      YES
0156  00200 002020          SSA            TRY ALL PACKS ?
0157  00201 026207R         JMP CGTPN      YES
0158  00202 002404          CLA,INA        SEARCH FOR EXISTING ENTRY
0159  00203 166132R         LDB ARG4,I     GET SPECIFIC PACK NO.
0160  00204 017725R         JSB CKPNT      PACK NO. IN OPEN TABLE ?
0161  00205 002001          RSS            NO.
0162  00206 026223R         JMP SEDIR      YES
0163  00207           CGTPN EQU *
0164  00207 062703R         LDA ADPNE      GET ADDR OF DUMMY PACK NO. ENTRY
0165  00210 072005X         STA PNEAD      STORE ADDR
0166  00211 162132R         LDA ARG4,I     GET PACK NO.
0167  00212 017703R         JSB GETPN      PACK NO. FOUND ?
0168  00213 016013R         JSB ER6        NO
0169  00214           INPNE EQU *
0170  00214 076711R         STB SVAEN      SAVE ENTRY ADDR
0171  00215 017656R         JSB SVPNS      SAVE PACK NO. SEARCH ENVIRONMENT
0172  00216 066711R         LDB SVAEN      RESTORE ENTRY ADDR
0173  00217 044056          ADB D3         INCREMENT TO T/S START FIELD
0174  00220 160001          LDA B,I        GET START T/S OF EFMP AREA
0175  00221 066005X         LDB PNEAD      ADDR OF PACK NO. ENTRY
0176  00222 170001          STA B,I        STORE STARTING T/S
0177  00223           SEDIR EQU *
0178  00223 017664R         JSB SETD1      SET UP FOR EFMP SEARCH
0179  00224 017711R         JSB SRCDR      SEARCH DIRECTORY
0180  00225 002001          RSS            FILE NAME NOT FOUND
0181  00226 017777R         JSB ER2        DUPLICATE FILE NAME
0182  00227 076016X         STB NXTFP      SAVE NEXT FILE LOC.
0183  00230 016417R         JSB REQS?      CALCULATE SECTORS NEEDED
0184  00231 017752R         JSB CKSPC      ENOUGH SPACE ?
0185  00232 026245R         JMP MORPK      NO
0186  00233 062121R         LDA MXWPE      EFMP ENTRY DIRECTORY SIZE
0187  00234 017717R         JSB CKDSP      ENOUGH DIRECTORY/FILE SPACE ?
0188  00235 002001          RSS            NO
0189  00236 026002X         JMP EFCON      YES
0190  00237 002003          SZA,RSS        NO FILE SPACE
0191  00240 026245R         JMP MORPK      YES
0192  00241 162132R         LDA ARG4,I     GET PACK NO.
0193  00242 002021          SSA,RSS        TRY ALL PACKS ?
0194  00243 016062R         JSB ER24       NO
0195  00244 026250R         JMP NXTPN      CONTINUE SEARCH
0196  00245           MORPK EQU *
0197  00245 162132R         LDA ARG4,I     GET PACK NO.
0198  00246 002021          SSA,RSS        TRY ALL PACKS ?
0199  00247 016005R         JSB ER4        NO
0200  00250           NXTPN EQU *
0201  00250 017675R         JSB REPNS      RESTORE PACK NO. SEARCH ENVIRONM
0202  00251 017714R         JSB GTNPN      CONTINUE PACK SEARCH
0203  00252 016035R         JSB ER14       NO PACK AVAILABLE
```

```
0204  00253 026214R        JMP INPNE      PACK FOUND

0206  00254          SSUBC EQU *
0207  00254 002404        CLA,INA        SEARCH FOR ACTIVE ENTRY INDICATR
0208  00255 166132R        LDB ARG4,I     GET PACK NO.
0209  00256 017725R        JSB CKPNT      PACK NO. IN OPEN TABLE ?
0210  00257 026263R        JMP NENTF      NO
0211  00260 002400        CLA            ENTRY FOUND SWITCH
0212  00261 072122R        STA PNESW      STORE SWITCH
0213  00262 026325R        JMP COPTE
0214  00263          NENTF EQU *
0215  00263 002400        CLA            SEARCH FOR AVAILABLE ENTRY INDIC
0216  00264 017725R        JSB CKPNT      PACK NO. ENTRY AVAILABLE ?
0217  00265 016043R        JSB ER16       NO
0218  00266 002404        CLA,INA        NEW ENTRY USED SWITCH
0219  00267 072122R        STA PNESW      STORE SWITCH
0220  00270 060155        LDA SYSSC      GET SYSTEM SUBCHANNEL
0221  00271 072025X        STA PAKSC      STORE IT
0222  00272 017667R        JSB SETD2      SET UP FOR DOS-M SEARCH
0223  00273 066006X        LDB APN00      GET PACK NO.
0224  00274 017711R        JSB SRCDR      SEARCH FOR PN000
0225  00275 002001        RSS             PN000 NOT FOUND
0226  00276 026301R        JMP BPNE       GO BUILD PACK NO. ENTRY
0227  00277 017650R        JSB CRPN0      CREATE PN000
0228  00300 026325R        JMP COPTE
0229  00301          BPNE  EQU *
0230  00301 044056        ADB D3         INCREMENT TO STARTING T/S FIELD
0231  00302 160001        LDA B,I        GET STARTING T/S
0232  00303 076711R        STB SVAEN      SAVE DIRECTORY ENTRY ADDR
0233  00304 066005X        LDB PNEAD      GET PACK NO. ENTRY ADDR
0234  00305 170001        STA B,I        STORE STARTING T/S IN PACK NO. E
0235  00306 072020X        STA STSWA      STORE STARTING T/S
0236  00307 066711R        LDB SVAEN      RESTORE DIRECTORY ENTRY ADDR
0237  00310 006004        INB            INCREMENT TO SIZE FIELD
0238  00311 160001        LDA B,I        GET SIZE FO PN000
0239  00312 066005X        LDB PNEAD      GET ADDR OF PACK NO. ENTRY
0240  00313 006004        INB            INCREMENT TO SIZE FIELD IN PACK
0241  00314 170001        STA B,I        STORE PN000 SIZE IN PACK NO. ENT
0242  00315 006004        INB            INCREMENT TO DIRECTORY SIZE FIEL
0243  00316 060116        LDA SECTR      GET DIRECTORY SIZE
0244  00317 040052        ADA MD1
0245  00320 170001        STA B,I        STORE DIRECTORY SIZE IN PACK NO.
0246  00321 006004        INB            INCREMENT TO LSA FIELD
0247  00322 002400        CLA             LSA IS ZERO
0248  00323 170001        STA B,I        STORE LSA IN PACK NO. ENTRY
0249  00324 072013X        STA NSUWA      STORE LSA
0250  00325          COPTE EQU *
0251  00325 016417R        JSB REQS?      CALCULATE SECTORS NEEDED
0252  00326 017752R        JSB CKSPC      IS SUFFICIENT SPACE AVAILABLE ?
0253  00327 016046R        JSB ER17       NO
0254  00330 066131R        LDB ARG3       GET ADDR OF FILE NAME
0255  00331 017706R        JSB CKOPN      CHECK IF OPEN
0256  00332 002001        RSS             NOT OPEN
0257  00333 017777R        JSB ER2        DUPLICATE NAME
0258  00334 060001        LDA B          NEXT OPEN TABLE LOCATION
0259  00335 052033X        CPA OPNTE      END OF O.T.?
```

```
0260  00336 016051R        JSB ER18       YES
0261  00337 003004         CMA,INA
0262  00340 042033X        ADA OPNTE      CALC. NO. WDS. LEFT IN O.T
0263  00341 002004         INA
0264  00342 042124R        ADA MWPOT      (-) WORDS PER OPEN TABLE ENTRY
0265  00343 002020         SSA            O.T FULL
0266  00344 016051R        JSB ER18       YES, NO OPEN BUFFER SPACE AVAIL.
0267  00345 062121R        LDA MXWPE      GET ENTRY SIZE
0268  00346 072007X        STA DESIZ      STORE ENTRY SIZE
0269  00347 076016X        STB NXTFP      ADDR OF DIRECTORY ENTRY
0270  00350 017730R        JSB PKDIR      PACK DIRECTORY
0271  00351 066016X        LDB NXTFP      GET START OF OPEN TABLE ENTRY
0272  00352 002400         CLA
0273  00353 044061         ADB D6         INCREMENT TO SECURITY FIELD
0274  00354 170001         STA B,I        SECURITY CODE
0275  00355 044057         ADB D4
0276  00356 170001         STA B,I  PACK NO.
0277  00357 006004         INB
0278  00360 002004         INA
0279  00361 170001         STA B,I  TRB NO.
0280  00362 006004         INB
0281  00363 060155         LDA SYSSC      SYST. SUB CH.
0282  00364 170001         STA B,I        SUB. CH.
0283  00365 006004         INB
0284  00366 002400         CLA
0285  00367 170001         STA B,I        T/S CURRENTLY IN CORE
0286  00370 002004         INA            INITL. TO RECD. NO. 1
0287  00371 006004         INB
0288  00372 170001         STA B,I        NEXT RECD. BEING PROCESSED
0289  00373 002400         CLA
0290  00374 006004         INB
0291  00375 170001         STA B,I        "HRA" IN CORE
0292  00376 006004         INB
0293  00377 076015X        STB NXOTL      SAVE NEXT OPEN TABLE LOCATION
0294  00400 062016X        LDA NXTFP      GET ADDR OF NEXT FILE POSITION
0295  00401 017755R        JSB STPNO      STORE PACK NO. OFFSET
0296  00402 062016X        LDA NXTFP      GET ADDR OF FILE ENTRY
0297  00403 017760R        JSB SFSTS      STORE STARTING T/S
0298  00404 066005X        LDB PNEAD      GET PACK NO. ENTRY
0299  00405 044056         ADB D3         INCREMENT TO LAST SECTOR ALLOCAT
0300  00406 160001         LDA B,I        GET THE NEW LSA
0301  00407 072013X        STA NSUWA      STORE NEW LSA
0302  00410 062122R        LDA PNESW      GET PACK NO. ENTRY USED SWITCH
0303  00411 002003         SZA,RSS        NEW ENTRY USED ?
0304  00412 026002X        JMP EFCON      NO
0305  00413 062004X        LDA NXPTL      UPDATE NEXT ENTRY AVAILABLE ADDR
0306  00414 040057         ADA D4
0307  00415 072004X       STA NXPTL
0308  00416 026002X        JMP EFCON
```

```
0311* REQS? - CALC. NO. OF SECTORS IN A FILE
0312* ENTER:
0313*          ARG5,I * FILE LENGTH (IN RECORDS)
0314*          ARG6,I * RECORD LENGTH (IN WORDS)
0315* EXIT:
0316*          A * NO. OF SECTORS
0317*          NOSEC * NO. OF SECTORS
0318*
0319  00417 000000  REQS? NOP            CALC. REQ. NO. OF SECTORS
0320  00420 162133R       LDA ARG5,I     FILE LENGTH (IN RECORDS)
0321  00421 002003        SZA,RSS
0322  00422 016067R       JSB ER23       INVALID FILE LENGTH
0323  00423 002020        SSA
0324  00424 016057R       JSB ER23       INVALID FILE LENGTH
0325  00425 166134R       LDB ARG6,I     RECORD LENGTH (IN WORDS)
0326  00426 006003        SZB,RSS
0327  00427 016010R       JSB ER5        INVALID RECORD LENGTH
0328  00430 006020        SSB
0329  00431 016010R       JSB ER5        INVALID RECORD LENGTH
0330  00432 005200        RBL
0331  00433 006020        SSB
0332  00434 016010R       JSB ER5
0333  00435 007004        CMB,INB
0334  00436 046014X       ADB WPTRB      WDS/TRB
0335  00437 006020        SSB            .GT. ONE-HALF TRB
0336  00440 016070R       JSB ER26       YES
0337  00441 166134R       LDB ARG6,I
0338  00442 017771R       JSB MPY        CALC. FILE LENGTH IN WORDS
0339  00443 017774R       JSB DIV        CALC. FILE LENGTH IN SECTORS
0340  00444 002120R       DEF D128
0341  00445 102201        SOC            OVERFLOW?
0342  00446 016057R       JSB ER23       YES, INVALID ARGUEMENTS
0343  00447 006002        SZB            PART OF ADDITIONAL SECTOR USED?
0344  00450 002004        INA            YES
0345  00451 072031X       STA NOSEC      SAVE NO. OF SECTORS
0346  00452 126417R       JMP REQS?,I    RETURN
```

```
0348*
0349*          DESTROY
0350*
0351   00453           FUN03 EQU *
0352   00453 017645R         JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0353   00454 017661R         JSB CKNAP      CHECK NAME AND PACK NO.
0354   00455 002003          SZA,RSS        PN000 ?
0355   00456 026571R         JMP SYSTP      YES
0356   00457 002020          SSA            TRY ALL PACKS ?
0357   00460 026472R         JMP STDPN      YES
0358   00461 066131R         LDB ARG3       GET ADDR OF FILE NAME
0359   00462 017706R         JSB CKOPN      FILE OPEN ?
0360   00463 002001          RSS            NO
0361   00464 026521R         JMP RDSEC      YES
0362   00465           SRPNT EQU *
0363   00465 002404          CLA,INA        PACK NO. ENTRY ACTIVE SWITCH
0364   00466 166132R         LDB ARG4,I     PACK NO.
0365   00467 017725R         JSB CKPNT      PACK NO. IN OPEN TABLE
0366   00470 002001          RSS            NO
0367   00471 026506R         JMP SNDIR      SEARCH NEXT DIRECTORY
0368   00472           STDPN EQU *
0369   00472 062703R         LDA ADPNE      GET ADDR OF DUMMY PACK NO. ENTRY
0370   00473 072005X         STA PNEAD      STORE ADDR
0371   00474 162132R         LDA ARG4,I     GET PACK NO.
0372   00475 017703R         JSB GETPN      PACK NO. AVAILABLE ?
0373   00476 016013R         JSB ER6        NO
0374   00477           INTP1 EQU *
0375   00477 076711R         STB SVAEN      SAVE ENTRY ADDR
0376   00500 017656R         JSB SVPNS      SAVE PACK NO. SEARCH ENVIRONMENT
0377   00501 066711R         LDB SVAEN      RESTORE ENTRY ADDR
0378   00502 044056          ADB D3         INCREMENT TO STARTING T/S FIELD
0379   00503 160001          LDA B,I        GET STARTING T/S
0380   00504 066005X         LDB PNEAD      GET ADDR OF PACK NO. ENTRY
0381   00505 170001          STA B,I        STORE STARTING T/S
0382   00506           SNDIR EQU *
0383   00506 017664R         JSB SETD1      SET UP FOR EFMP SEARCH
0384   00507 017711R         JSB SRCDR      FILE IN DIRECTORY ?
0385   00510 002001          RSS            NO
0386   00511 026531R         JMP DSENT      YES
0387   00512 162132R         LDA ARG4,I     GET PACK NO.
0388   00513 002021          SSA,RSS        TRY ALL PACKS ?
0389   00514 016002R         JSB ER3        NO
0390   00515 017675R         JSB REPNS      RESTORE PACK NO. SEARCH ENVIRONM
0391   00516 017714R         JSB GTNPN      CONTINUE SEARCH
0392   00517 016013R         JSB ER6        NO PACK NO. AVAILABLE
0393   00520 026477R         JMP INTP1      SEARCH DIRECTORY
0394   00521           RDSEC EQU *
0395   00521 044065          ADB D10        INCREMENT TO PACK NO. FIELD
0396   00522 162132R         LDA ARG4,I     GET PACK NO.
0397   00523 150001          CPA B,I        PACK NO.'S EQUAL ?
0398   00524 002001          RSS            YES
0399   00525 026465R         JMP SRPNT      NO
0400   00526 044041          ADB MD10       BACK UP TO START OF ENTRY
0401   00527 017672R         JSB GETDE      GET DIRECTORY ENTRY
0402   00530 066030X         LDB CNAME      GET CURRENT ENTRY ADDR
0403   00531           DSENT EQU *
```

```
0404  00531 076712R        STB FILPO     FILE POSITION
0405  00532 044061         ADB D6
0406  00533 160001         LDA B,I       PICK UP SECURITY CODE
0407  00534 152133R        CPA ARG5,I    VALID?
0408  00535 002001         RSS           YES
0409  00536 016016R         JSB ER7
0410  00537 066712R        LDB FILPO     FILE POSITION
0411  00540 060075         LDA INVCH     INVALID CHAR.
0412  00541 170001         STA B,I
0413  00542 006004         INB
0414  00543 170001         STA B,I
0415  00544 006004         INB
0416  00545 170001         STA B,I
0417  00546 002404         CLA,INA       WRITE SWITCH
0418  00547 066025X        LDB PAKSC     GET SUBCHANNEL
0419  00550 017766R         JSB PRWIO    WRITE DIRECTORY ENTRY
0420  00551 066131R        LDB ARG3      GET ADDR OF FILE NAME
0421  00552 017706R         JSB CKOPN    FILE OPEN ?
0422  00553 026002X         JMP EFCON    NO
0423  00554 062010X         LDA DPNO     GET PACK NO.
0424  00555 044065          ADB D10      INCREMENT TO OPEN TABLE PACK NO.
0425  00556 150001          CPA B,I      PACK NO.'S EQUAL ?
0426  00557 002001          RSS          YES
0427  00560 026002X         JMP EFCON    NO
0428  00561 044043          ADB MD8      BACK UP TO PACK NO. OFFSET FIELD
0429  00562 160001          LDA B,I      GET PACK NO. OFFSET
0430  00563 072710R         STA SVPNO    SAVE OFFSET
0431  00564 044051          ADB MD2      BACK UP TO START OF OPEN TABLE E
0432  00565 017301R         JSB MOVOT
0433  00566 062710R         LDA SVPNO    GET PACK NO. OFFSET
0434  00567 017700R         JSB MVPNT    UPDATE PACK NO. ENTRY TABLE
0435  00570 026002X         JMP EFCON    RETURN
0436  00571          SYSTP  EQU *        SYSTEM PACK
0437  00571 066131R        LDB ARG3      GET ADDR OF FILE NAME
0438  00572 017706R         JSB CKOPN    CHECK IF FILE OPENED
0439  00573 016002R         JSB ER3      NAME NOT IN WORK AREA
0440  00574 076712R        STB FILPO     SAVE FILE POSITION
0441  00575 044065          ADB D10      INCREMENT TO PACK NO
0442  00576 160001          LDA B,I      GET PACK NO.
0443  00577 002002          SZA          PN000 ?
0444  00600 016040R         JSB ER15     NO
0445  00601 017637R         JSB POST     POST ALL TRB'S
0446  00602 016604R         JSB RPWKA    REPACK WORK AREA
0447  00603 026002X         JMP EFCON    RETURN TO MAIN

0449*
0450* REPACK DISC
0451*
0452  00604 000000  RPWKA NOP            REPACK WORK AREA
0453  00605 062020X        LDA STSWA     STARTING T/S IN WORK AREA
0454  00606 017733R         JSB T.STS    CONV. TO SECTORS
0455  00607 042013X         ADA NSUWA    NO. SECT. USED IN WORK AREA
0456  00610 017736R         JSB STT.S    CONV. TO T/S
0457  00611 064155          LDB SYSSC    SYSTEM SUB CH.
0458  00612 077476R         STB DISSC    DESIRED SUB CH.
0459  00613 066712R        LDB FILPO     FILE POSITION
```

```
0460  00614 017371R        JSB RPDIS      REPACK DISC
0461  00615 026656R        JMP UDNSU      UPDATE NO. SECT. USED IN WK AREA
0462  00616 072713R        STA FILPO+1    SAVE SUB LENGTH MOVED
0463  00617 066712R        LDB FILPO      FILE POSITION IN OPEN TABLE
0464  00620 076714R        STB FILSE      CURRENT FILE POSITION IN O.T.
0465  00621 044056         ADB D3
0466  00622 160001         LDA B,I        T/S OF FILE TO BE DELETED
0467  00623 017733R        JSB T.STS      CONV. TO SECTORS
0468  00624 072715R        STA FILSE+1
0469  00625          MINOT EQU *          MORE IN O.T.
0470  00626 066714R        LDB FILSE      CURRENT FILE POSITION IN O.T.
0471  00626 046123R        ADB WPOTE      WORDS PER O.T. ENTRY
0472  00627 060001         LDA B
0473  00630 003000         CMA
0474  00631 042015X        ADA NXOTL      NEXT O.T. LOC.
0475  00632 002020         SSA            .GE.? (FINISHED?)
0476  00633 026657R        JMP UDNSU+1    FINISHED,UPDATE NO. SECT. USED
0477  00634 076714R        STB FILSE      NEW FILE POSITION
0478  00635 044065         ADB D10
0479  00636 160001         LDA B,I        PACK NO.
0480  00637 002002         SZA            FILE IN WORK AREA?
0481  00640 026625R        JMP MINOT      NO
0482  00641 044044         ADB MD7
0483  00642 160001         LDA B,I        T/S IN WORK AREA
0484  00643 017733R        JSB T.STS      CONV. TO SECT.
0485  00644 003000         CMA
0486  00645 042715R        ADA FILSE+1    STARTING T/S OF ORIGINAL FILE
0487  00646 002021         SSA,RSS        THIS AREA .GE. AREA MOVED?
0488  00647 026625R        JMP MINOT      NO
0489  00650 160001         LDA B,I        OLD T/S
0490  00651 017733R        JSB T.STS      CONV. TO SECTORS
0491  00652 042713R        ADA FILPO+1    SUB. LENGTH MOVED
0492  00653 017736R        JSB STT.S      CONV. BACK TO T/S
0493  00654 170001         STA B,I        NEW T/S FOR START OF FILE INFO.
0494  00655 026625R        JMP MINOT      MORE IN OPEN TABLE
0495  00656          UDNSU EQU *          UPDATE NO. SEC. USED IN WK AREA
0496  00656 072713R        STA FILPO+1    SAVE SUB LENGTH MOVED
0497  00657 066712R        LDB FILPO      FILE POSITION IN O.T.
0498  00660 044055         ADB D2         INCREMENT TO PACK NO. OFFSET FIE
0499  00661 160001         LDA B,I        GET PACK NO. OFFSET
0500  00662 072710R        STA SVPNO      SAVE PACK NO. OFFSET
0501  00663 044051         ADB MD2        BACK UP TO START OF ENTRY
0502  00664 017301R        JSB MOVOT      MOVE SUBSEQUENT O.T. ENTRIES
0503  00665 062710R        LDA SVPNO      GET PACK NO. OFFSET
0504  00666 017700R        JSB MVPNT      UPDATE PACK NO. TABLE
0505  00667 062013X        LDA NSUWA      NO. SECT. USED IN WORK AREA
0506  00670 042713R        ADA FILPO+1    SUB. LENGTH MOVED
0507  00671 072013X        STA NSUWA
0508  00672 002404         CLA,INA        SEARCH FOR ACTIVE ENTRY
0509  00673 006400         CLB            PACK NO. OF 0
0510  00674 017725R        JSB CKPNT      PACK NO. ENTRY FOUND ?
0511  00675 126604R        JMP RPWKA,I    NO
0512  00676 062013X        LDA NSUWA      GET NEW LSA
0513  00677 066005X        LDB PNEAD      GET ADDR OF PACK NO. ENTRY
0514  00700 044056         ADB D3         INCREMENT TO LSA FIELD
0515  00701 170001         STA B,I        STORE NEW LSA IN PACK NO. ENTRY
```

```
0516   00702 126604R        JMP RPWKA,I    RETURN
0517   00703 000704R ADPNE  DEF DPNE       ADDR OF DUMMY PACK NO. ENTRY
0518   00704 000000  DPNE   BSS 4          DUMMY PACK NO. ENTRY
0519   00710 000000  SVPNO  BSS 1          SAVE FOR OFFSET
0520   00711 000000  SVAEN  BSS 1          SAVE FOR ENTRY ADDR
0521   00712 000000  FILPO  OCT 0,0        FILE POSITION
       00713 000000
0522   00714 000000  FILSE  OCT 0,0        FILE SECTOR
       00715 000000
```

```
0524*
0525*          OPEN FUNCTION
0526*
0527  00716                FUN04 EQU *
0528  00716 017645R              JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0529  00717 017661R              JSB CKNAP      CHECK NAME AND PACK NO.
0530  00720 002002               SZA            PN000 ?
0531  00721 002001               RSS            NO
0532  00722 027123R              JMP OTMFL      YES
0533  00723 066131R              LDB ARG3       GET FILE NAME
0534  00724 017706R              JSB CKOPN      FILE OPEN ?
0535  00725 002001               RSS            NO
0536  00726 016065R              JSB ER25       YES
0537  00727 062015X              LDA NXOTL      GET NEXT OPEN TABLE ENTRY
0538  00730 042123R              ADA WPOTE      ADD SIZE OF ENTRY
0539  00731 040052               ADA MD1
0540  00732 003004               CMA,INA
0541  00733 042033X              ADA OPNTE      ROOM FOR NEW ENTRY ?
0542  00734 002020               SSA            YES
0543  00735 016051R              JSB ER16       NO
0001  00736 166132R              LDB ARG4,I     GET PACK NO.
0002  00737 006021               SSB,RSS        TRY ALL PACKS ?
0003  00740 026744R              JMP SOPNT      NO
0004  00741 062703R              LDA ADPNE      GET ADDR OF DUMMY PACK NO. ENTRY
0005  00742 072005X              STA PNEAD      STORE ADDR
0006  00743 026756R              JMP GFSPN
0007  00744                SOPNT EQU *
0008  00744 002404               CLA,INA        SEARCH FOR ACTIVE ENTRY
0009  00745 166132R              LDB ARG4,I     GET PACK NO.
0010  00746 017725R              JSB CKPNT      PACK NO. IN TABLE
0011  00747 002001               RSS            NO
0012  00750 026771R              JMP SPNE1      YES
0013  00751 002400               CLA            SEARCH FOR AVAILABLE ENTRY
0014  00752 017725R              JSB CKPNT      ENTRY AVAILABLE ?
0015  00753 016043R              JSB ER16       NO
0016  00754 002400               CLA            NEW ENTRY SWITCH
0017  00755 072122R              STA PNESW      STORE SWITCH
0018  00756                GFSPN EQU *
0019  00756 162132R              LDA ARG4,I     GET PACK NO.
0020  00757 017703R              JSB GETPN      PACK NO. AVAILABLE ?
0021  00760 016013R              JSB ER6        NO
0022  00761                SRCFL EQU *
0023  00761 076711R              STB SVAEN      SAVE ENTRY ADDR
0024  00762 017656R              JSB SVPNS      SAVE PACK NO. SEARCH ENVIRONMENT
0025  00763 066711R              LDB SVAEN      RESTORE ENTRY ADDR
0026  00764 044056               ADB D3         INCREMENT TO T/S OF DIRECTORY
0027  00765 160001               LDA B,I        GET T/S START OF EFMP DIRECTORY
0028  00766 066005X              LDB PNEAD      GET ADDR OF PACK NO. ENTRY
0029  00767 170001               STA B,I        STORE STARTING T/S
0030  00770 026773R              JMP CSET1      NO
0031  00771                SPNE1 EQU *
0032  00771 002404               CLA,INA        NO NEW ENTRY SWITCH
0033  00772 072122R              STA PNESW      STORE SWITCH
0034  00773                CSET1 EQU *
0035  00773 017664R              JSB SETD1      SET UP FOR EFMP SEARCH
0036  00774 017711R              JSB SRCDR      SEARCH FOR FILE
```

```
0037  00775 002001          RSS             FILE NOT FOUND
0038  00776 027006R         JMP BLFTE       FILE FOUND
0039  00777 162132R         LDA ARG4,I      GET PACK NO.
0040  01000 002021          SSA,RSS         TRY ALL PACKS ?
0041  01001 016002R         JSB ER3         NO
0042  01002 017675R         JSB REPNS       RESTORE PACK NO. SEARCH ENVIRONM
0043  01003 017714R         JSB GTNPN       YES, SEARCH FOR NEXT PACK NO.
0044  01004 016013R         JSB ER6         NO PACK NO. AVAILABLE
0045  01005 026761R         JMP SRCFL       PACK NO. AVAILABLE
0046  01006           BLFTE EQU *
0047  01006 077365R         STB OCFPO       OPEN/CLOSE FILE POSITION
0048  01007 044061          ADB D6
0049  01010 160001          LDA B,I         SECURITY CODE
0050  01011 152134R         CPA ARG6,I      VALID?
0051  01012 002001          RSS             YES
0052  01013 016016R         JSB ER7
0053  01014 002400          CLA
0054  01015 170001          STA B,I         CLEAR FOR IN CORE
0055  01016 166132R         LDB ARG4,I      GET PACK NO.
0056  01017 006021          SSB,RSS         TRY ALL PACKS ?
0057  01020 027042R         JMP MOVEN       NO
0058  01021 002404          CLA,INA         SEARCH FOR ACTIVE ENTRY SWITCH
0059  01022 066010X         LDB DPNO        GET PACK NO.
0060  01023 017725R         JSB CKPNT       PACK NO. IN TABLE
0061  01024 027030R         JMP SFAVE       NO
0062  01025 002404          CLA,INA         NO NEW ENTRY SWITCH
0063  01026 072122R         STA PNESW       STORE SWITCH
0064  01027 027042R         JMP MOVEN
0065  01030           SFAVE EQU *
0066  01030 002400          CLA             SEARCH FOR ENTRY SWITCH
0067  01031 017725R         JSB CKPNT       IS AN ENTRY AVAILABLE ?
0068  01032 016043R         JSB ER16        NO
0069  01033 060047          LDA MD4         MOVE COUNT
0070  01034 072034X         STA MOVCT       STORE MOVE COUNT
0071  01035 062703R         LDA ADPNE       SOURCE ADDR
0072  01036 066005X         LDB PNEAD       DESTINATION ADDR
0073  01037 017634R         JSB MOVE        MOVE PACK NO. ENTRY FROM DUMMY T
0074  01040 002400          CLA             NEW ENTRY USED SWITCH
0075  01041 072122R         STA PNESW       STORE SWITCH
0076  01042           MOVEN EQU *
0077  01042 062121R         LDA MXWPE       MAX. WDS/ENTRY
0078  01043 003004          CMA,INA
0079  01044 072034X         STA MOVCT       NO. WDS TO MOVE
0080  01045 063365R         LDA OCFPO       O/C FILE POSITION(SOURCE)
0081  01046 066015X         LDB NXOTL       NEXT O.T. LOC.(DESTINATION)
0082  01047 017634R         JSB MOVE        INSERT NEXT ENTRY
0083  01050 066015X         LDB NXOTL       GET NEW OPEN TABLE ADDR
0084  01051 044065          ADB D2          INCREMENT TO PACK NO. OFFSET
0085  01052 160001          LDA B,I         ZERO PACK NO OFFSET
0086  01053 010075          AND H8BT
0087  01054 170001          STA B,I         STORE IT
0088  01055 062015X         LDA NXOTL       GET ADDR OF OPEN TABLE ENTRY
0089  01056 017755R         JSB STPNO       STORE PACK NO. OFFSET IN ENTRY
0090  01057 062015X         LDA NXOTL       GET ADDR OF OPEN TABLE ENTRY
0091  01060 017760R         JSB SFSTS       STORE STARTING T/S IN ENTRY
0092  01061 066015X         LDB NXOTL       GET ADDR OF OPEN TABLE ENTRY
```

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0093  01062 044064          ADB D9          INCREMENT TO DIREC ENTRY T/S FIE
0094  01063 062026X         LDA TRKIO       GET TRACK
0095  01064 001727          ALF,ALF         SHIFT TRACK TO LEFT
0096  01065 022027X         XOR SECIO       GET DIRECTORY ENTRY SECTOR NO.
0097  01066 170001          STA B,I         STORE DIRECTORY ENTRY T/S IN OPE
0098  01067 006004          INB             INCREMENT TO PACK NO. FIELD
0099  01070 062010X         LDA DPNO        GET PACK NO.
0100  01071 170001          STA B,I         PACK NO.
0101  01072 006004          INB
0102  01073 017347R         JSB GTRBN       GET TRB NO.
0103  01074 170001          STA B,I         TRB NO.
0104  01075 062025X         LDA PAKSC       PACK SUB CH.
0105  01076 006004          INB
0106  01077 170001          STA B,I
0107  01100 006004          INB
0108  01101 002400          CLA
0109  01102 170001          STA B,I         T/S CUR. IN CORE
0110  01103 044046          ADB MD5
0111  01104 160001          LDA B,I         "HRA" ON DISC
0112  01105 044062          ADB D7
0113  01106 170001          STA B,I         "HRA" IN CORE
0114  01107 066015X         LDB NXOTL       NEXT O.T.LOC.
0115  01110 017144R         JSB CKMRN       CHECK MAX. RECD. NO.
0116  01111 170001          STA B,I         NEXT RECORD BEING PROCESSED
0117  01112 044055          ADB D2
0118  01113 076015X         STB NXOTL       UPDATE NEXT O.T. LOC.
0119  01114 066122R         LDB PNESW       GET PACK NO. ENTRY SWITCH
0120  01115 006002          SZB             NEW ENTRY USED ?
0121  01116 026002X         JMP EFCON       NO
0122  01117 066004X         LDB NXPTL       GET ADDR OF NEXT PACK NO. ENTRY
0123  01120 044057          ADB D4          UPDATE ADDR FOR NEW ENTRY
0124  01121 076004X         STB NXPTL       STORE NEW ADDR
0125  01122 026002X         JMP EFCON       RETURN TO MAIN

0127  01123          OTMFL  EQU *           "OPEN" TEMP FILE
0128  01123 066131R         LDB ARG3        ADDR. OF FILE NAME
0129  01124 017706R         JSB CKOPN       CHECK IF FILE ALREADY OPEN
0130  01125 016021R         JSB ER8         NOT IN DIR. FROM CREATE
0131  01126 077365R         STB OCFPO       SAVE FILE POSITION IN O.T.
0132  01127 044065          ADB D10         INCREMENT TO PACK NO. FIELD
0133  01130 002400          CLA             PN000
0134  01131 150001          CPA B,I         PACK NO. = 0 ?
0135  01132 002001          RSS             YES
0136  01133 016021R         JSB ER8         NO
0137  01134 067365R         LDB OCFPO       GET ADDR OF START OF ENTRY
0138  01135 017347R         JSB GTRBN       GET TRB NO.
0139  01136 046103R         ADB D11
0140  01137 170001          STA B,I         TRB NO.
0141  01140 067365R         LDB OCFPO       POSITION IN O.T.
0142  01141 017144R         JSB CKMRN       CHECK MAX. RECD. NO.
0143  01142 170001          STA B,I         STARTING R.N.
0144  01143 026002X         JMP EFCON       RETURN TO MAIN

0146  01144 000000  CKMRN    NOP             CHECK MAX. RECD. NO.
0147  01145 162133R         LDA ARG5,I      RCDNO
0148  01146 002020          SSA
```

```
0149  01147 016027R       JSB ER10
0150  01150 044057        ADB D4
0151  01151 003004        CMA,INA
0152  01152 140001        ADA B,I         FILE LENGTH(IN RECORDS)
0153  01153 002020        SSA             .GT. FILE SIZE?
0154  01154 016027R       JSB ER10        YES
0155  01155 162133R       LDA ARG5,I      RCDNO
0156  01156 044065        ADB D10         POINT TO NEXT R.N. BEING ACC.
0157  01157 002002        SZA             START AT EOF?
0158  01160 127144R       JMP CKMRN,I     NO
0159  01161 006004        INB
0160  01162 160001        LDA B,I         "HRA" IN CORE
0161  01163 044052        ADB MD1
0162  01164 002004        INA
0163  01165 127144R       JMP CKMRN,I     RETURN
```

```
0165*
0166*          CLOSE FUNCTION
0167*
0168  01166           FUN05 EQU *
0169  01166 017645R         JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0170  01167 162131R         LDA ARG3,I     PICK UP 1ST WORD
0171  01170 002002         SZA            CLOSE ALL FILES?
0172  01171 027203R         JMP CLSIT      NO, CLOSE ONLY ONE
0173* CLOSE ALL FILES
0174  01172           NXCLS EQU *          NEXT CLOSE
0175  01172 062024X         LDA OPNT1      START OF O.T.
0176  01173 003000         CMA
0177  01174 042015X         ADA NXOTL      NEXT O.T. LOC
0178  01175 002020         SSA            .GE. (FINISHED)?
0179  01176 026002X         JMP EFCON      YES, RETURN TO MAIN
0180  01177 066024X         LDB OPNT1      START OF O.T.
0181  01200 076131R         STB ARG3       STORE ADDR OF FILE NAME
0182  01201 017210R         JSB CLOS1      CLOSE 1ST ONE AND REPACK
0183  01202 027172R         JMP NXCLS      NEXT CLOSE

0185  01203           CLSIT EQU *          CLOSE IT
0186  01203 066131R         LDB ARG3       ADDR. OF FILE NAME
0187  01204 017706R         JSB CKOPN      CHECK IF OPEN
0188  01205 016032R         JSB ER11       FILE NOT OPEN
0189  01206 017210R         JSB CLOS1      CLOSE THIS FILE ONLY
0190  01207 026002X         JMP EFCON      RETURN TO MAIN
```

```
0192* CLOS1 - CLOSE 1 FILE
0193* ENTER:
0194*         B = ADDR. OF FILE NAME
0195* EXIT:
0196*         FILE CLOSED (REMOVED FROM O.T.) AND
0197*         WORK AREA REPACKED IF NECESSARY (ALL
0198*         TRB'S WILL BE POSTED IF W.A. IS REPACKED)
0199*
0200  01210 000000  CLOS1 NOP             CLOSE 1 FILE
0201  01211 077366R       STB OCFPO+1     O/C FILE POSITION
0202  01212 046104R       ADB D12         INCREMENT TO SUBCHANNEL FIELD
0203  01213 160001        LDA B,I         GET SUBCHANNEL
0204  01214 072025X       STA PAKSC       INIT PACK SUBCHANNEL
0205  01215 044051        ADB MD2         BACK UP TO PACK NO. FIELD
0206  01216 160001        LDA B,I         GET PACK NO.
0207  01217 002003        SZA,RSS         PN000 ?
0208  01220 027274R       JMP DISRP       YES
0209  01221 067366R       LDB OCFPO+1     GET OPEN TABLE ENTRY
0210  01222 017672R       JSB GETDE       GET DIRECTORY ENTRY
0211  01223 066030X       LDB CNAME       GET ADDR OF DIRECTORY ENTRY
0212  01224 077365R       STB OCFPO       STORE ADDR
0213  01225 067366R       LDB OCFPO+1     ADDR OF OPEN TABLE ENTRY
0214  01226 046103R       ADB D11
0215  01227 160001        LDA B,I         TRB NO.
0216  01230 064056        LDB D3
0217  01231 040052        ADA MD1
0218  01232 017771R       JSB MPY         CALC. BIAS
0219  01233 042003X       ADA FTRBE       START OF TRB'S
0220  01234 064000        LDB A
0221  01235 040055        ADA D2
0222  01236 160000        LDA A,I         TRB POINTER TO O.T.
0223  01237 053366R       CPA OCFPO+1     THIS TRB FOR THIS FILE?
0224  01240 017642R       JSB POSTW       POST IF NECESSARY
0225  01241 067366R       LDB OCFPO+1     POINTER TO FILE IN O.T.
0226  01242 044063        ADB D8
0227  01243 160001        LDA B,I         H.R.N. WRITTEN ON DISC
0228  01244 044062        ADB D7
0229  01245 003004        CMA,INA
0230  01246 140001        ADA B,I         H.R.N. ACCESSED IN CORE
0231  01247 001600        ELA             SAVE SIGN OF "A"
0232  01250 160001        LDA B,I         H.R.N. ACCESSED IN CORE
0233  01251 067365R       LDB OCFPO       POINTER TO FILE IN $BUF
0234  01252 044063        ADB D8
0235  01253 002040        SEZ             UPDATE OLD HRN?(NEW .GT. OLD?)
0236  01254 170001        STA B,I         YES
0237  01255 162132R       LDA ARG4,I      USER STATUS CODE
0238  01256 044052        ADB MD1
0239  01257 170001        STA B,I         UPDATE USER STATUS CODE
0240  01260 002404        CLA,INA         WRITE
0241  01261 066025X       LDB PAKSC       GET SUBCHANNEL
0242  01262 017766R       JSB PRWIO       WRITE UPDATED DIRECTORY ENTRY
0243  01263 067366R       LDB OCFPO+1     POINTER TO FILE IN O.T.
0244  01264 044055        ADB D2          INCREMENT TO PACK NO. OFFSET FIE
0245  01265 160001        LDA B,I         GET PACK NO. OFFSET
0246  01266 072710R       STA SVPNO       SAVE THE PACK NO. OFFSET
0247  01267 044051        ADB MD2         BACK UP TO START OF ENTRY
```

```
0248  01270 017301R        JSB MOVOT      MOVE OPEN TABLE
0249  01271 062710R        LDA SVPNO      GET PACK NO, OFFSET
0250  01272 017700R        JSB MVPNT      UPDATE PACK NO, TABLE
0251  01273 127210R        JMP CLOS1,I    RETURN
0252  01274           DISRP EQU *
0253  01274 067366R        LDB OCFPO+1    POINTER TO FILE IN O.T.
0254  01275 076712R        STB FILPO      INITIALIZE POINTER
0255  01276 017637R        JSB POST
0256  01277 016604R        JSB RPWKA      REPACK WORK AREA
0257  01300 127210R        JMP CLOS1,I    RETURN
```

```
0259* MOVOT - MOVE OPEN TABLE AND UPDATE TRB POINTERS
0260* ENTER:
0261*          B = STARTING ADDR. OF ENTRY TO BE
0262*              DELETED IN O.T.
0263* EXIT:
0264*          OPEN TABLE AND TRB TRIPLET'S REPACKED
0265*
0266  01301 000000  MOVOT NOP             MOVE O.T. AND MODIFY TRB TRIPLET
0267  01302 077367R       STB MVOT1       SAVE POINTER TO O.T.
0268  01303 046123R       ADB WPOTE       WORDS/O.T. ENTRY
0269  01304 007004        CMB,INB
0270  01305 046015X       ADB NXOTL       NEXT O.T. LOCATION
0271  01306 063367R       LDA MVOT1
0272  01307 006003        SZB,RSS         ANY ENTRIES TO MOVE?
0273  01310 027320R       JMP NOMOV       NO
0274  01311 007004        CMB,INB
0275  01312 076034X       STB MOVCT       NO. OF WDS TO MOVE
0276  01313 042123R       ADA WPOTE       SOURCE ADDR.
0277  01314 067367R       LDB MVOT1       DESTINATION ADDR.
0278  01315 017634R       JSB MOVE
0279  01316 076015X       STB NXOTL       UPDATE NEXT O.T. LOC.
0280  01317 002001        RSS
0281  01320         NOMOV EQU *           NO MOVE
0282  01320 072015X       STA NXOTL       UPDATE NEXT O.T. LOC.
0283  01321 062012X       LDA NOTRB       NO. TRB
0284  01322 003004        CMA,INA
0285  01323 073370R       STA MVOTX       INITIALIZE INDEX
0286  01324 066003X       LDB FTRBE
0287  01325 044055        ADB D2
0288  01326         MOVNA EQU *           MOVE NEXT ADDR.
0289  01326 160001        LDA B,I         PICK UP POINTER TO O.T. ENTRY
0290  01327 053367R       CPA MVOT1
0291  01330 027344R       JMP CLRIT       CLEAR IT
0292  01331 003004        CMA,INA
0293  01332 043367R       ADA MVOT1
0294  01333 002021        SSA,RSS         .GE. TO ENTRY MOVED?
0295  01334 027340R       JMP MVNTR       NO
0296  01335 160001        LDA B,I         POINTER TO OLD ENTRY IN O.T.
0297  01336 042124R       ADA MWPOT       BIAS BACK 1 ENTRY
0298  01337 170001        STA B,I         RESTORE IT
0299  01340         MVNTR EQU *           MOVE TO NEXT TRB
0300  01340 044056        ADB D3          BIAS TO NEXT TRB TRIPLET
0301  01341 037370R       ISZ MVOTX       FINISHED?
0302  01342 027326R       JMP MOVNA       NO, MOVE NEXT ADDR.
0303  01343 127301R       JMP MOVOT,I     RETURN
0304  01344         CLRIT EQU *           CLEAR IT
0305  01344 002400        CLA
0306  01345 170001        STA B,I         CLEAR THIS POINTER
0307  01346 027340R       JMP MVNTR       MOVE TO NEXT TRB
```

```
0309* GTRBN - GET TRB NUMBER AND CHECK IT
0310* ENTER:
0311*          ARG7 = ADDR. OF DESIRED TRB NO.
0312* EXIT:
0313*          A = TRB NO.
0314*          B IS SAVED
0315*
0316  01347 000000  GTRBN NOP             GET TRB NO.
0317  01350 162135R       LDA ARG7,I      TRB NO
0318  01351 002020       SSA              INVALID?
0319  01352 027361R       JMP GTRB1       YES
0320  01353 003004       CMA,INA
0321  01354 042012X       ADA NOTRB       MAX. NO. TRB'S
0322  01355 002020       SSA              .GT.?
0323  01356 027361R       JMP *+3         YES
0324  01357 162135R       LDA ARG7,I
0325  01360 027362R       JMP *+2
0326  01361          GTRB1 EQU *
0327  01361 002400       CLA
0328  01362 002003       SZA,RSS          INVALID 0?
0329  01363 002004       INA              YES
0330  01364 127347R       JMP GTRBN,I     RETURN
0331  01365 000000  OCFPO OCT 0,0         OPEN/CLOSE FILE POSITION
      01366 000000
0332  01367 000000  MVOT1 OCT 0           TEMP LOC. FOR MOVE O.T.
0333  01370 000000  MVOTX OCT 0           INDEX FOR MOVE O.T.


0335* RPDIS - REPACK 1 DISC ENTRY
0336* ENTER:
0337*          A = STARTING T/S OF NEXT DATA AREA
0338*          B = FILE POSITION
0339*          DISSC = DESIRED SUBCHANNEL
0340* EXIT:
0341*          A = (-) NO. SECT. MOVED
0342*          P+1 = UPDATED LAST FILE ONLY
0343*          P+2 = UPDATED OTHER THAN LAST FILE
0344*
0345  01371 000000  RPDIS NOP             REPACK 1 DISC ENTRY
0346  01372 017733R       JSB T.STS       CONV. TO SECT.
0347  01373 073474R       STA RPSTS       LAS DATA FILE SECTOR+1
0348  01374 077475R       STB RPLOC       FILE LOC.
0349  01375 044056        ADB D3
0350  01376 160001        LDA B,I         T/S IN WORK AREA
0351  01377 017733R       JSB T.STS       CONVERT TO SECTORS
0352  01400 073500R       STA CFILS       CURRENT FILE STARTING SECTOR
0353  01401 006004        INB
0354  01402 160001        LDA B,I         FILE LENGTH (IN RECORDS)
0355  01403 006004        INB
0356  01404 164001        LDB B,I         RECORD LENGTH (IN WORDS)
0357  01405 017771R       JSB MPY         CALC. FILE LENGTH IN WORDS
0358  01406 017774R       JSB DIV         CALC. FILE LENGTH IN SECTORS
0359  01407 002120R       DEF D128
0360  01410 102201        SOC             OVERFLOW ?
0361  01411 016057R       JSB ER23        YES, ERROR SHOULD NOT OCCUR
```

```
0362  01412 006002          SZB             OVERFLOW TO ANOTHER SECTOR ?
0363  01413 002004          INA             YES
0364  01414 073501R         STA FILSI       FILE SIZE(IN SECT.) I. E. DELTA
0365  01415 003004          CMA,INA
0366  01416 073502R         STA FILSI+1     SAVE (-) VALUE
0367  01417 003004          CMA,INA
0368  01420 043500R         ADA CFILS       CURRENT FILE STARTING SECTOR
0369  01421 073503R         STA NFILS        STARTING SECT. FOR NEXT FILE
0370  01422 003000          CMA
0371  01423 043474R         ADA RPSTS       LAST FILE START
0372  01424 002020          SSA             LAST FILE ?
0373  01425 027472R         JMP RPD1        YES
0374  01426 002004          INA
0375  01427 073504R         STA NSLTM       NO. SECT LEFT TO MOVE
0376  01430 062012X         LDA NOTRB       NO. OF TRB'S
0377  01431 066022X         LDB TRBSZ
0378  01432 017771R         JSB MPY         CALC. NO. SECT. IN TOTAL TRB
0379  01433 073477R         STA BUFSZ       SAVE TOTAL TRB SIZE (IN SECTORS)
0380  01434           RPAKM EQU *
0381  01434 003004          CMA,INA
0382  01435 043504R         ADA NSLTM       NO. SECT. LEFT TO MOVE
0383  01436 067504R         LDB NSLTM
0384  01437 073504R         STA NSLTM
0385  01440 002021          SSA,RSS         MORE TO BE MOVED THAN BUFF. SIZE
0386  01441 067477R         LDB BUFSZ       YES
0387  01442 006003         SZB,RSS          FINISHED ?
0388  01443 027471R         JMP RPD1-1      YES
0389  01444 076035X         STB GNS         NO. SECT. FOR GENERAL R/W
0390  01445 063476R         LDA DISSC       DESIRED SUBCHANNEL
0391  01446 072036X         STA GSC         SUBCHANNEL FOR GENERAL R/W
0392  01447 063503R         LDA NFILS       NEXT FILE SECTOR
0393  01450 017736R         JSB STT.S       CONV. TO T/S
0394  01451 066021X         LDB TRBUF       BUFFER ADDR
0395  01452 017744R         JSB GRTXX       READ
0396  01453 063500R         LDA CFILS       CURRENT FILE SECTOR
0397  01454 017736R         JSB STT.S       CONV. TO T/S
0398  01455 066021X         LDB TRBUF
0399  01456 017747R         JSB GWTXX       WRITE
0400  01457 063500R         LDA CFILS       CURRENT FILE SECTOR (ABSOLUTE)
0401  01460 042035X         ADA GNS         NO. SECT. MOVED
0402  01461 073500R         STA CFILS
0403  01462 063503R         LDA NFILS       NEXT FILE SECTOR (ABSOLUTE)
0404  01463 042035X         ADA GNS         NO. SECT. MOVED
0405  01464 073503R         STA NFILS
0406  01465 063477R         LDA BUFSZ       TOTAL SIZE OF TRB (IN SECTORS)
0407  01466 067504R         LDB NSLTM       NO. SECT. LEFT TO MOVE
0408  01467 006021          SSB,RSS         FINISHED ?
0409  01470 027434R         JMP RPAKM       NO, REPACK MORE
0410  01471 037371R         ISZ RPDIS       P+2
0411  01472           RPD1  EQU *
0412  01472 063502R         LDA FILSI+1     (-) NO. OF SECT. MOVED
0413  01473 127371R         JMP RPDIS,I     RETURN
0414  01474 000000    RPSTS OCT 0           REPACK STARTING T/S
0415  01475 000000    RPLOC OCT 0           REPACK STARTING LOC.
0416  01476 000000    DISSC OCT 0
0417  01477 000000    BUFSZ OCT 0           TOTAL SIZE OF TRB (IN SECTORS)
```

```
0418  01500 000000  CFILS OCT 0          CURRENT FILE STARTING SECTOR
0419  01501 000000  FILSI OCT 0,0        FILE SIZE
      01502 000000
0420  01503 000000  NFILS OCT 0          NEXT FILE SIZE
0421  01504 000000  NSLTM OCT 0          NO. SECTORS LEFT TO MOVE
```

```
0423  01505           FUN07 EQU *
0424  01505 017645R         JSB CKVSU     CHECK IF VALID DEFINE PREVIOUSLY
0425  01506 162131R         LDA ARG3,I    GET PACK NUMBER
0426  01507 017653R         JSB CKPN      CHECK PACK NUMBER FOR EQUAL OR L
0427  01510 002020          SSA           IS PACK NUMBER POSITIVE ?
0428  01511 016040R         JSB ER15      NO
0429  01512 002003          SZA,RSS       SYSTEM PACK DESIRED ?
0430  01513 016040R         JSB ER15      YES
0431  01514 017703R         JSB GETPN     SEARCH FOR THE DESIRED PACK NUMB
0432  01515 016013R         JSB ER6       PACK NUMBER NOT AVAILABLE
0433  01516 077627R         STB DIRPT     SAVE DIRECTORY ADDRESS
0434  01517 044056          ADB D3        INCREMENT TO STARTING T/S FIELD
0435  01520 160001          LDA B,I       GET STARTING T/S
0436  01521 073630R         STA STRTS     SAVE T/S
0437  01522 044054          ADB D1        INCREMENT TO FILE SIZE
0438  01523 160001          LDA B,I       GET THE FILE SIZE
0439  01524 073631R         STA FILSZ     SAVE FILE SIZE
0440  01525 162132R         LDA ARG4,I    GET NUMBER OF DIRECTORY ENTRIES
0441  01526 002020          SSA           POSITIVE ?
0442  01527 016073R         JSB ER29      NO
0443  01530 040054          ADA D1        ADD ONE FOR EFMP'S OWN DIRECTORY
0444  01531 066121R         LDB MXWPE
0445  01532 017771R         JSB MPY       CALC. TOTAL WDS. NEEDED FOR DIRE
0446  01533 017774R         JSB DIV       CALC. TOTAL SECT. NEEDED FOR DIR
0447  01534 002120R         DEF D128      SECTOR SIZE
0448  01535 102201          SOC           OVERFLOW ?
0449  01536 016073R         JSB ER29      DIRECTORY SIZE IS TOO LARGE
0450  01537 006002          SZB           OVERFLOW TO ANOTHER SECTOR ?
0451  01540 002004          INA           YES
0452  01541 073626R         STA DIRSZ     SAVE DIRECTORY SIZE
0453  01542 003004          CMA,INA       TWO'S COMPLEMENT
0454  01543 043631R         ADA FILSZ     CALCULATE SPACE REMAINING BEYOND
0455  01544 002020          SSA           SPACE FOR DIRECTORY IN EFMP FILE
0456  01545 016073R         JSB ER29      NO
0457  01546 067624R         LDB DIBUF     GET EFMP DIRECTORY BUFFER ADDRES
0458  01547 044056          ADB D3        INCREMENT TO DIRECTORY SIZE FIEL
0459  01550 063626R         LDA DIRSZ     GET DIRECTORY SIZE
0460  01551 170001          STA B,I       INITIALIZE DIRECTORY SIZE
0461  01552 006004          INB           INCREMENT TO FILE SIZE FIELD
0462  01553 063631R         LDA FILSZ     GET FILE SIZE
0463  01554 170001          STA B,I       INITIALIZE FILE SIZE
0464  01555 044057          ADB D4        INCREMENT TO LAST ALLOCATED SECT
0465  01556 063626R         LDA DIRSZ     CALCULATE LAST ALLOCATED SECTOR
0466  01557 170001          STA B,I       INITIALIZE LAST ALLOCATED SECTOR
0467  01560 062011X         LDA ASBUF     GET ADDRESS OF SBUF
0468  01561 073625R         STA ASBSV     SAVE ADDR OF SBUF
0469  01562 063624R         LDA DIBUF     GET ADDRESS OF WRITE BUFFER
0470  01563 072011X         STA ASBUF     STORE IT FOR WRITE ROUTINE
0471  01564 062026X         LDA TRKIO     GET TRACK NO.
0472  01565 073632R         STA SVTRK     SAVE TRACK NO.
0473  01566 062027X         LDA SECIO     GET SECTOR NO.
0474  01567 073633R         STA SVSEC     SAVE SECTOR NO.
0475  01570 063630R         LDA STRTS     GET T/S WRITE ADDRESS
0476  01571 017763R         JSB PRETS     PREPARE IT FOR I/O
0477  01572 060054          LDA D1        WRITE INDICATOR
0478  01573 066025X         LDB PAKSC     GET CURRENT SUBCHANNEL
```

```
0479  01574 017766R        JSB PRWIO     WRITE FIRST SECTOR OF EFMP FILE
0480  01575 063625R        LDA A$BSV     GET ADDR OF $BUF
0481  01576 072011X        STA A$BUF     RESTORE THE ADDRESS OF $BUF
0482  01577 067627R        LDB DIRPT     GET DIRECTORY ADDRESS
0483  01600 044055          ADB D2        INCREMENT TO TYPE FIELD
0484  01601 134001          ISZ B,I       CHANGE FROM BINARY TO ASCII
0485  01602 063632R        LDA SVTRK     GET TRACK NO.
0486  01603 072026X        STA TRKIO     RESTORE TRACK NO.
0487  01604 063633R        LDA SVSEC     GET SECTOR NO.
0488  01605 072027X        STA SECIO     RESTORE SECTOR NO.
0489  01606 060054          LDA D1        WRITE INDICATOR
0490  01607 066025X        LDB PAKSC     GET CURRENT SUBCHANNEL
0491  01610 017766R        JSB PRWIO     WRITE BACK DOSM ENTRY FOR THE PA
0492  01611 026002X        JMP EFCON     RETURN TO MAIN
0493  01612 000000  FNAM1   BSS 1
0494  01613 000000  FNAM2   BSS 1
0495  01614 000000  FNAM3   BSS 1
0496  01615 000000  FDRSZ   BSS 1
0497  01616 000000  FLSIZ   BSS 1
0498  01617 000000  RESV1   BSS 1
0499  01620 000000  RESV2   BSS 1
0500  01621 000000  RESV3   BSS 1
0501  01622 000000  LSTSA   BSS 1
0502  01623 000000  EODM    BSS 1
0503  01624 001612R DIBUF   DEF FNAM1
0504  01625 000000  ASBSV   BSS 1       SAVE FOR $BUF ADDR
0505  01626 000000  DIRSZ   BSS 1       DIRECTORY SIZE
0506  01627 000000  DIRPT   BSS 1       DIRECTORY ENTRY POINTER
0507  01630 000000  STRTS   BSS 1       EFMP STARTING T/S
0508  01631 000000  FILSZ   BSS 1       EFMP SIZE
0509  01632 000000  SVTRK   BSS 1       TRACK SAVE AREA
0510  01633 000000  SVSEC   BSS 1       SECTOR SAVE AREA
```

```
0512  01634 000000  MOVE  NOP
0513  01635 016040X        JSB MASUB
0514  01636 000001        DEC 1
0515  01637 000000  POST  NOP
0516  01640 016040X        JSB MASUB
0517  01641 000002        DEC 2
0518  01642 000000  POSTW NOP
0519  01643 016040X        JSB MASUB
0520  01644 000003        DEC 3
0521  01645 000000  CKVSU NOP
0522  01646 016040X        JSB MASUB
0523  01647 000004        DEC 4
0524  01650 000000  CRPN0 NOP
0525  01651 016040X        JSB MASUB
0526  01652 000006        DEC 6
0527  01653 000000  CKPN  NOP
0528  01654 016040X        JSB MASUB
0529  01655 000007        DEC 7
0530  01656 000000  SVPNS NOP
0531  01657 016040X        JSB MASUB
0532  01660 000010        DEC 8
0533  01661 000000  CKNAP NOP
0534  01662 016040X        JSB MASUB
0535  01663 000011        DEC 9
0536  01664 000000  SETD1 NOP
0537  01665 016040X        JSB MASUB
0538  01666 000012        DEC 10
0539  01667 000000  SETD2 NOP
0540  01670 016040X        JSB MASUB
0541  01671 000013        DEC 11
0542  01672 000000  GETDE NOP
0543  01673 016040X        JSB MASUB
0001  01674 000014        DEC 12
0002  01675 000000  REPNS NOP
0003  01676 016040X        JSB MASUB
0004  01677 000015        DEC 13
0005  01700 000000  MVPNT NOP
0006  01701 016040X        JSB MASUB
0007  01702 000020        DEC 16
0008  01703 000000  GETPN NOP
0009  01704 016040X        JSB MASUB
0010  01705 000021        DEC 17
0011  01706 000000  CKOPN NOP
0012  01707 016040X        JSB MASUB
0013  01710 000022        DEC 18
0014  01711 000000  SRCDR NOP
0015  01712 016040X        JSB MASUB
0016  01713 000023        DEC 19
0017  01714 000000  GTNPN NOP
0018  01715 016040X        JSB MASUB
0019  01716 000024        DEC 20
0020  01717 000000  CKDSP NOP
0021  01720 016040X        JSB MASUB
0022  01721 000025        DEC 21
0023  01722 000000  CKCLM NOP
0024  01723 016040X        JSB MASUB
```

```
0025  01724 000026         DEC 22
0026  01725 000000  CKPNT  NOP
0027  01726 016040X        JSB MASUB
0028  01727 000030         DEC 24
0029  01730 000000  PKDIR  NOP
0030  01731 016040X        JSB MASUB
0031  01732 000031         DEC 25
0032  01733 000000  T.STS  NOP
0033  01734 016040X        JSB MASUB
0034  01735 000032         DEC 26
0035  01736 000000  STT.S  NOP
0036  01737 016040X        JSB MASUB
0037  01740 000033         DEC 27
0038  01741 000000  STZ    NOP
0039  01742 016040X        JSB MASUB
0040  01743 000034         DEC 28
0041  01744 000000  GRTXX  NOP
0042  01745 016040X        JSB MASUB
0043  01746 000035         DEC 29
0044  01747 000000  GWTXX  NOP
0045  01750 016040X        JSB MASUB
0046  01751 000036         DEC 30
0047  01752 000000  CKSPC  NOP
0048  01753 016040X        JSB MASUB
0049  01754 000037         DEC 31
0050  01755 000000  STPNO  NOP
0051  01756 016040X        JSB MASUB
0052  01757 000040         DEC 32
0053  01760 000000  SFSTS  NOP
0054  01761 016040X        JSB MASUB
0055  01762 000041         DEC 33
0056  01763 000000  PRETS  NOP
0057  01764 016040X        JSB MASUB
0058  01765 000042         DEC 34
0059  01766 000000  PRWIO  NOP
0060  01767 016040X        JSB MASUB
0061  01770 000043         DEC 35
0062  01771 000000  MPY    NOP
0063  01772 016040X        JSB MASUB
0064  01773 000044         DEC 36
0065  01774 000000  DIV    NOP
0066  01775 016040X        JSB MASUB
0067  01776 000045         DEC 37
```

```
0069  01777           ER2   EQU *
0070  01777 000000           OCT 0
0071  02000 060055           LDA D2
0072  02001 016076R          JSB ERR
0073  02002           ER3   EQU *
0074  02002 000000           OCT 0
0075  02003 060056           LDA D3
0076  02004 016076R          JSB ERR
0077  02005           ER4   EQU *
0078  02005 000000           OCT 0
0079  02006 060057           LDA D4
0080  02007 016076R          JSB ERR
0081  02010           ER5   EQU *
0082  02010 000000           OCT 0
0083  02011 060060           LDA D5
0084  02012 016076R          JSB ERR
0085  02013           ER6   EQU *
0086  02013 000000           OCT 0
0087  02014 060061           LDA D6
0088  02015 016076R          JSB ERR
0089  02016           ER7   EQU *
0090  02016 000000           OCT 0
0091  02017 060062           LDA D7
0092  02020 016076R          JSB ERR
0093  02021           ER8   EQU *
0094  02021 000000           OCT 0
0095  02022 060063           LDA D8
0096  02023 016076R          JSB ERR
0097  02024           ER9   EQU *
0098  02024 000000           OCT 0
0099  02025 060064           LDA D9
0100  02026 016076R          JSB ERR
0101  02027           ER10  EQU *
0102  02027 000000           OCT 0
0103  02030 060065           LDA D10
0104  02031 016076R          JSB ERR
0105  02032           ER11  EQU *
0106  02032 000000           OCT 0
0107  02033 062103R          LDA D11
0108  02034 016076R          JSB ERR
0109  02035           ER14  EQU *
0110  02035 000000           OCT 0
0111  02036 062105R          LDA D14
0112  02037 016076R          JSB ERR
0113  02040           ER15  EQU *
0114  02040 000000           OCT 0
0115  02041 062106R          LDA D15
0116  02042 016076R          JSB ERR
0117  02043           ER16  EQU *
0118  02043 000000           OCT 0
0119  02044 062107R          LDA D16
0120  02045 016076R          JSB ERR
0121  02046           ER17  EQU *
0122  02046 000000           OCT 0
0123  02047 062110R          LDA D17
0124  02050 016076R          JSB ERR
```

```
0125   02051            ER18   EQU *
0126   02051 000000            OCT 0
0127   02052 062111R           LDA D18
0128   02053 016076R           JSB ERR
0129   02054            ER19   EQU *
0130   02054 000000            OCT 0
0131   02055 062112R           LDA D19
0132   02056 016076R           JSB ERR
0133   02057            ER23   EQU *
0134   02057 000000            OCT 0
0135   02060 062113R           LDA D23
0136   02061 016076R           JSB ERR
0137   02062            ER24   EQU *
0138   02062 000000            OCT 0
0139   02063 062114R           LDA D24
0140   02064 016076R           JSB ERR
0141   02065            ER25   EQU *
0142   02065 000000            OCT 0
0143   02066 062115R           LDA D25
0144   02067 016076R           JSB ERR
0145   02070            ER26   EQU *
0146   02070 000000            OCT 0
0147   02071 062116R           LDA D26
0148   02072 016076R           JSB ERR
0149   02073            ER29   EQU *
0150   02073 000000            OCT 0
0151   02074 062117R           LDA D29
0152   02075 016076R           JSB ERR
0153   02076 000000    ERR     NOP
0154   02077 066076R           LDB ERR
0155   02100 044050            ADB MD3
0156   02101 164001            LDB B,I         PICK UP LOC OF ERROR
0157   02102 026001X           JMP ERROR
```

```
0159  00000           A      EQU 0
0160  00001           B      EQU 1
0161  00053           .      EQU 53B
0162  00116           SECTR  EQU 116B
0163  00155           SYSSC  EQU 155B
0164  00075           H8BT EQU 75B
0165  00075           INVCH  EQU 75B

0167  00041           MD10   EQU .-10
0168  00043           MD8    EQU .-8
0169  00044           MD7    EQU .-7
0170  00046           MD5    EQU .-5
0171  00047           MD4    EQU .-4
0172  00050           MD3    EQU .-3
0173  00051           MD2    EQU .-2
0174  00052           MD1    EQU .-1
0175  00054           D1     EQU .+1
0176  00055           D2     EQU .+2
0177  00056           D3     EQU .+3
0178  00057           D4     EQU .+4
0179  00060           D5     EQU .+5
0180  00061           D6     EQU .+6
0181  00062           D7     EQU .+7
0182  00063           D8     EQU .+8
0183  00064           D9     EQU .+9
0184  00065           D10    EQU .+10
0185  02103 000013    D11    DEC 11
0186  02104 000014    D12    DEC 12
0187  02105 000016    D14    DEC 14
0188  02106 000017    D15    DEC 15
0189  02107 000020    D16    DEC 16
0190  02110 000021    D17    DEC 17
0191  02111 000022    D18    DEC 18
0192  02112 000023    D19    DEC 19
0193  02113 000027    D23    DEC 23
0194  02114 000030    D24    DEC 24
0195  02115 000031    D25    DEC 25
0196  02116 000032    D26    DEC 26
0197  02117 000035    D29    DEC 29
0198  02120 000200    D128   DEC 128
0199  02121 000011    MXWPE  DEC 9          WORDS/DIRECTORY ENTRY
0200  02122 000000    PNESW  BSS 1          PACK NO. ENTRY SWITCH
0201  02123 000020    WPOTE  DEC 16         WORDS/OPEN TABLE ENTRY
0202  02124 177760    MWPOT  DEC -16        NEG. WORDS/OPEN TABLE ENTRY
0203  02125 000000    TWTRB  OCT 0          TOTAL WORDS IN ALL TRB'S
0204  02126 002127R   AARG1  DEF ARG1
0205  02127 000000    ARG1   OCT 0
0206  02130 000000    ARG2   OCT 0
0207  02131 000000    ARG3   OCT 0
0208  02132 000000    ARG4   OCT 0
0209  02133 000000    ARG5   OCT 0
0210  02134 000000    ARG6   OCT 0
0211  02135 000000    ARG7   OCT 0
0212  02136 000000    ARG8   OCT 0
0213                   END
** NO ERRORS*
```

```
$EX31   00015/01 00004/01

.       00161/03 00167/03 00166/03 00169/03 00170/03 00171/03 00172/03
        00173/03 00174/03 00175/03 00176/03 00177/03 00178/03 00179/03
        00180/03 00181/03 00182/03 00183/03 00184/03

A       00159/03 00024/01 00062/01 00111/01 00220/02 00222/02

A$B8V   00504/02 00468/02 00480/02

A$BUF   00007/01 00467/02 00470/02 00481/02

AARG1   00204/03 00020/01

ADPNE   00517/01 00164/01 00369/01 00004/02 00071/02

AJMPT   00025/01 00023/01

APN00   00006/01 00223/01

ARG1    00205/03 00204/03

ARG2    00206/03 00022/01

ARG3    00207/03 00041/01 00254/01 00358/01 00420/01 00437/01 00533/01
        00128/02 00170/02 00181/02 00186/02 00425/02

ARG4    00208/03 00042/01 00051/01 00159/01 00166/01 00192/01 00197/01
        00208/01 00364/01 00371/01 00387/01 00396/01 00001/02 00009/02
        00019/02 00039/02 00055/02 00237/02 00440/02

ARG5    00209/03 00112/01 00320/01 00407/01 00147/02 00155/02

ARG6    00210/03 00060/01 00071/01 00325/01 00337/01 00050/02

ARG7    00211/03 00090/01 00317/02 00324/02

*ARG8   00212/03

ARGP1   00009/01 00019/01

B       00160/03 00057/01 00138/01 00174/01 00176/01 00231/01 00234/01
        00238/01 00241/01 00245/01 00248/01 00258/01 00274/01 00276/01
        00279/01 00282/01 00285/01 00288/01 00291/01 00300/01 00379/01
        00381/01 00397/01 00406/01 00412/01 00414/01 00416/01 00425/01
        00429/01 00442/01 00466/01 00472/01 00479/01 00483/01 00489/01
        00493/01 00499/01 00515/01 00027/02 00029/02 00049/02 00054/02
        00085/02 00087/02 00097/02 00100/02 00103/02 00106/02 00109/02
        00111/02 00113/02 00116/02 00134/02 00140/02 00143/02 00152/02
        00160/02 00203/02 00206/02 00215/02 00227/02 00230/02 00232/02
        00236/02 00239/02 00245/02 00289/02 00296/02 00298/02 00306/02
        00350/02 00354/02 00356/02 00435/02 00438/02 00460/02 00463/02
        00466/02 00484/02 00156/03

BLFTE   00046/02 00038/02
```

```
BPNE    00229/01 00226/01

BUFSZ   00417/02 00379/02 00386/02 00406/02

CFILS   00418/02 00352/02 00368/02 00396/02 00400/02 00402/02

CGTPN   00163/01 00157/01

CKCLM   00023/03 00062/01 00113/01

CKDSP   00020/03 00187/01

CKMRN   00146/02 00115/02 00142/02 00158/02 00163/02

CKNAP   00533/02 00153/01 00353/01 00529/01

CKOPN   00011/03 00255/01 00359/01 00421/01 00438/01 00534/01 00120/02
        00187/02

CKPN    00527/02 00426/02

CKPNT   00026/03 00160/01 00209/01 00216/01 00365/01 00510/01 00018/02
        00014/02 00060/02 00067/02

CKSPC   00047/03 00184/01 00252/01

CKVSU   00521/02 00152/01 00352/01 00528/01 00169/02 00424/02

CLOS1   00200/02 00182/02 00189/02 00251/02 00257/02

CLRIT   00304/02 00291/02

CLSIT   00185/02 00172/02

CNAME   00010/01 00402/01 00211/02

COPTE   00250/01 00213/01 00228/01

CRPN0   00524/02 00227/01

CSET1   00034/02 00030/02

D1      00175/03 00095/01 00437/02 00443/02 00477/02 00489/02

D10     00184/03 00395/01 00424/01 00441/01 00478/01 00132/02 00156/02
        00103/03

D11     00185/03 00139/02 00214/02 00107/03

D12     00186/03 00202/02

D128    00198/03 00048/01 00089/01 00340/01 00359/02 00447/02

D14     00187/03 00111/03
```

```
D15     00188/03 00115/03

D16     00189/03 00119/03

D17     00190/03 00123/03

D18     00191/03 00127/03

D19     00192/03 00131/03

D2      00176/03 00498/01 00084/02 00117/02 00221/02 00244/02 00287/02
        00483/02 00071/03

D23     00193/03 00135/03

D24     00194/03 00139/03

D25     00195/03 00143/03

D26     00196/03 00147/03

D29     00197/03 00151/03

D3      00177/03 00077/01 00128/01 00139/01 00173/01 00230/01 00299/01
        00378/01 00465/01 00514/01 00026/02 00216/02 00300/02 00349/02
        00434/02 00458/02 00075/03

D4      00178/03 00065/01 00275/01 00306/01 00123/02 00159/02 00464/02
        00079/03

D5      00179/03 00083/03

D6      00180/03 00273/01 00405/01 00048/02 00087/03

D7      00181/03 00112/02 00228/02 00091/03

D8      00182/03 00226/02 00234/02 00095/03

D9      00183/03 00093/02 00099/03

DEFIN   00146/01 00135/01 00141/01

DESIZ   00006/01 00268/01

DIBUF   00503/02 00457/02 00469/02

DIRPT   00506/02 00433/02 00482/02

DIRSZ   00505/02 00452/02 00459/02 00465/02

DISRP   00252/02 00208/02

DISSC   00416/02 00458/01 00390/02

DIV     00065/03 00339/01 00358/02 00446/02
```

```
 DPNE    00518/01 00517/01

 DPNO    00006/01 00423/01 00059/02 00099/02

 DSENT   00403/01 00386/01

 EFCON   00005/01 00032/01 00145/01 00189/01 00304/01 00308/01 00422/01
         00427/01 00436/01 00447/01 00121/02 00125/02 00144/02 00179/02
         00190/02 00492/02

*EODM    00502/02

 ER10    00101/03 00149/02 00154/02

 ER11    00105/03 00188/02

 ER14    00109/03 00203/01

 ER15    00113/03 00444/01 00428/02 00430/02

 ER16    00117/03 00217/01 00015/02 00068/02

 ER17    00121/03 00253/01

 ER18    00125/03 00260/01 00266/01 00543/01

 ER19    00129/03 00073/01 00075/01

 ER2     00069/03 00181/01 00257/01

 ER23    00133/03 00044/01 00046/01 00050/01 00064/01 00070/01 00084/01
         00088/01 00092/01 00094/01 00096/01 00100/01 00102/01 00107/01
         00109/01 00125/01 00322/01 00324/01 00342/01 00361/02

 ER24    00137/03 00194/01

 ER25    00141/03 00536/01

 ER26    00145/03 00336/01

 ER29    00149/03 00442/02 00449/02 00456/02

 ER3     00073/03 00389/01 00439/01 00041/02

 ER4     00077/03 00199/01

 ER5     00081/03 00327/01 00329/01 00332/01

 ER6     00085/03 00168/01 00373/01 00392/01 00021/02 00044/02 00432/02

 ER7     00089/03 00409/01 00052/02

 ER8     00093/03 00130/02 00136/02

 ER9     00097/03 00053/01 00114/01
```

ERR 00153/03 00072/03 00076/03 00080/03 00084/03 00088/03 00092/03
00096/03 00100/03 00104/03 00108/03 00112/03 00116/03 00120/03
00124/03 00128/03 00132/03 00136/03 00140/03 00144/03 00148/03
00152/03 00156/03

ERROR 00005/01 00157/03

*FDRSZ 00496/02

FILPO 00521/01 00404/01 00410/01 00440/01 00459/01 00462/01 00463/01
00491/01 00496/01 00497/01 00506/01 00254/02

FILSE 00522/01 00464/01 00468/01 00470/01 00477/01 00486/01

FILSI 00419/02 00364/02 00366/02 00412/02

FILSZ 00508/02 00439/02 00454/02 00462/02

*FLSIZ 00497/02

FNAM1 00493/02 00503/02

*FNAM2 00494/02

*FNAM3 00495/02

FTRBE 00006/01 00068/01 00079/01 00131/01 00137/01 00219/02 00286/02

FUN01 00038/01 00027/01

FUN02 00151/01 00028/01

FUN03 00351/01 00029/01

FUN04 00527/01 00030/01

FUN05 00168/02 00031/01

FUN07 00423/02 00033/01

GETDE 00542/02 00401/01 00210/02

GETPN 00008/03 00167/01 00372/01 00020/02 00431/02

GFSPN 00018/02 00006/02

GNS 00011/01 00389/02 00401/02 00404/02

GRTXX 00041/03 00396/02

GSC 00011/01 00391/02

GTNPN 00017/03 00202/01 00391/01 00043/02

GTRB1 00326/02 00319/02

GTRBN 00316/02 00102/02 00138/02 00330/02

GWTXX 00044/03 00399/02

H8BT 00164/03 00086/02

INPNE 00169/01 00204/01

INTP1 00374/01 00393/01

INVCH 00165/03 00411/01

JMPTB 00026/01 00025/01

*LSTSA 00501/02

MASUB 00013/01 00513/02 00516/02 00519/02 00522/02 00525/02 00528/02
00531/02 00534/02 00537/02 00540/02 00543/02 00003/03 00006/03
00009/03 00012/03 00015/03 00018/03 00021/03 00024/03 00027/03
00030/03 00033/03 00036/03 00039/03 00042/03 00045/03 00048/03
00051/03 00054/03 00057/03 00060/03 00063/03 00066/03

MD1 00174/03 00058/01 00244/01 00539/01 00161/02 00217/02 00238/02

MD10 00167/03 00400/01

MD2 00173/03 00431/01 00501/01 00205/02 00247/02

MD3 00172/03 00155/03

MD4 00171/03 00069/02

MD5 00170/03 00110/02

MD7 00169/03 00482/01

MD8 00168/03 00017/01 00428/01

MINOT 00469/01 00481/01 00488/01 00494/01

MORPK 00196/01 00185/01 00191/01

MOVCT 00011/01 00018/01 00070/02 00079/02 00275/02

MOVE 00512/02 00021/01 00073/02 00082/02 00278/02

MOVEN 00076/02 00057/02 00064/02

MOVNA 00288/02 00302/02

MOVOT 00266/02 00432/01 00502/01 00248/02 00303/02

MPY 00062/03 00066/01 00078/01 00098/01 00105/01 00129/01 00338/01
00218/02 00357/02 00378/02 00445/02

MVNTR 00299/02 00295/02 00307/02

```
MVOT1   00332/02 00267/02 00271/02 00277/02 00290/02 00293/02

MVOTX   00333/02 00285/02 00301/02

MVPNT   00005/03 00434/01 00504/01 00250/02

MWPOT   00202/03 00264/01 00297/02

MXWPE   00199/03 00186/01 00267/01 00077/02 00444/02

NENTF   00214/01 00210/01

NFILS   00420/02 00369/02 00392/02 00403/02 00405/02

NOMOV   00281/02 00273/02

NOSEC   00010/01 00345/01

NOTRB   00008/01 00076/01 00104/01 00127/01 00133/01 00283/02 00321/02
        00376/02

NSLTM   00421/02 00375/02 00382/02 00383/02 00384/02 00407/02

NSUWA   00008/01 00249/01 00301/01 00455/01 00505/01 00507/01 00512/01

NXCLS   00174/02 00183/02

NXOTL   00008/01 00080/01 00293/01 00474/01 00537/01 00081/02 00083/02
        00088/02 00090/02 00092/02 00114/02 00116/02 00177/02 00270/02
        00279/02 00282/02

NXPTL   00006/01 00055/01 00305/01 00307/01 00122/02 00124/02

NXTFP   00008/01 00182/01 00269/01 00271/01 00294/01 00296/01

NXTPN   00200/01 00195/01

OCFPO   00331/02 00047/02 00080/02 00131/02 00137/02 00141/02 00201/02
        00209/02 00212/02 00213/02 00223/02 00225/02 00233/02 00243/02
        00253/02

OPNSZ   00011/01 00056/01

OPNT1   00010/01 00081/01 00175/02 00180/02

OPNTB   00009/01 00054/01 00067/01 00123/01

OPNTE   00011/01 00059/01 00086/01 00117/01 00259/01 00262/01 00541/01

OTMFL   00127/02 00532/01

PAKSC   00010/01 00221/01 00418/01 00104/02 00204/02 00241/02 00478/02
        00490/02

PKDIR   00029/03 00270/01
```

```
 PNEAD   00006/01 00165/01 00175/01 00233/01 00239/01 00298/01 00370/01
         00380/01 00513/01 00005/02 00028/02 00072/02

 PNESW   00200/03 00212/01 00219/01 00302/01 00017/02 00033/02 00063/02
         00075/02 00119/02

 POST    00515/02 00445/01 00255/02

 POSTW   00518/02 00224/02

 PRETS   00056/03 00476/02

 PRWIO   00059/03 00419/01 00242/02 00479/02 00491/02

 RDSEC   00394/01 00361/01

 REPNS   00002/03 00201/01 00390/01 00042/02

 REQS?   00319/01 00183/01 00251/01 00346/01

*RESV1   00498/02

*RESV2   00499/02

*RESV3   00500/02

 RPAKM   00380/02 00409/02

 RPD1    00411/02 00373/02 00388/02

 RPDIS   00345/02 00460/01 00410/02 00413/02

 RPLOC   00415/02 00348/02

 RPSTS   00414/02 00347/02 00371/02

 RPWKA   00452/01 00446/01 00511/01 00516/01 00256/02

 SECIO   00010/01 00096/02 00473/02 00488/02

 SECTR   00162/03 00243/01

 SEDIR   00177/01 00162/01

 SETD1   00536/02 00178/01 00383/01 00035/02

 SETD2   00539/02 00222/01

 SFAVE   00065/02 00061/02

 SFSTS   00053/03 00297/01 00091/02

 SNDIR   00382/01 00367/01

 SOPNT   00007/02 00003/02
```

SPNE1 00031/02 00012/02

SRCDR 00014/03 00179/01 00224/01 00384/01 00036/02

SRCFL 00022/02 00045/02

SRPNT 00362/01 00399/01

SSUBC 00206/01 00155/01

STDPN 00368/01 00357/01

STPNO 00050/03 00295/01 00089/02

STRTS 00507/02 00436/02 00475/02

STSWA 00009/01 00235/01 00453/01

STT.S 00035/03 00456/01 00492/01 00393/02 00397/02

STZ 00038/03 00132/01

SVAEN 00520/01 00170/01 00172/01 00232/01 00236/01 00375/01 00377/01
00023/02 00025/02

SVPNO 00519/01 00430/01 00433/01 00500/01 00503/01 00246/02 00249/02

SVPNS 00530/02 00171/01 00376/01 00024/02

SVSEC 00510/02 00474/02 00487/02

SVTRK 00509/02 00472/02 00485/02

SYSSC 00163/03 00220/01 00281/01 00457/01

SYSTP 00436/01 00355/01

T.STS 00032/03 00454/01 00467/01 00484/01 00490/01 00346/02 00351/02

TRBOK 00126/01 00119/01

TRBSZ 00009/01 00097/01 00377/02

TRBUF 00009/01 00115/01 00120/01 00136/01 00394/02 00398/02

TRKIO 00010/01 00094/02 00471/02 00486/02

TWTRB 00203/03 00110/01 00121/01

UDNSU 00495/01 00461/01 00476/01

VALSU 00012/01 00040/01 00144/01

WPOTE 00201/03 00082/01 00471/01 00538/01 00268/02 00276/02

WPTRB 00008/01 00103/01 00140/01 00334/01

WPTRB 00008/01 00103/01 00140/01 00334/01

```
0001                    ASMB,R,L,C,X,B      $EX32
**  NO ERRORS*
```

```
0001                    ASMB,R,L,C,X,B      $EX32
0003  00000                     NAM $EX32,1
0004                            ENT $EX32
0005                            EXT ERROR, EFCON
0006                            EXT AINVC,NSUWA,FTRBE,CNAME,PNEAD,OPNTB
0007                            EXT TRBSZ,ARGP1,NOPAS,EBIAS,GTNXE,DPNO,PN
0008                            EXT PAKSC,MOVCT,APN00,GSC,GNS
0009                            EXT MASUB,SRCDR,ASBUF



0011  00000           $EX32 EQU *
0012  00000 000000          NOP             DUMMY
0013  00001 064043          LDB  MD8
0014  00002 076021X         STB  MOVCT      NO. WORDS TO MOVE
0015  00003 062012X         LDA ARGP1       ADDR. OF SOURCE
0016  00004 067751R         LDB  AARG1      ADDR. OF DEST.
0017  00005 017540R         JSB  MOVE       MOVE THE ARGS.
0018  00006 163753R         LDA  ARG2,I     FUNCTION NO.
0019  00007 042011R         ADA  AJMPT
0020  00010 124000          JMP  A,I        EXECUTE PROPER FUNCTION
0021  00011 100004R AJMPT   DEF JMPTB-6,I
0022  00012           JMPTB EQU *
0023  00012 000022R         DEF FUN06
0024  00013 000002X         DEF EFCON
0025  00014 000062R         DEF FUN08       FUNCTION 8
0026  00015 000463R         DEF FUN09
0027  00016 000561R         DEF FUN10
0028  00017 000002X         DEF EFCON
0029  00020 000002X         DEF EFCON
0030  00021 001304R         DEF FUN13
```

```
0032*
0033*          READ FUNCTION
0034*
0035  00022           FUN06 EQU *
0036  00022 017551R         JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0037  00023 016210R         JSB CKINL      CHECK AND INITIALIZE PARA, AND T
0038  00024           READ1 EQU *
0039  00024 066374R         LDB RFLPO      READ-FILE POSITION
0040  00025 016375R         JSB CALAV      CALCULATE ALL NECESSARY VALUES
0041  00026 016266R         JSB CKEOF      CHECK IF END-OF-FILE
0042  00027 017717R         JSB ER21       END-OF-FILE
0043  00030 016305R         JSB CKRNO      CK, RECORD NO, IN CORE
0044  00031 026043R         JMP READ2      DESIRED R,N, OUT OF RANGE OF TRB
0045  00032 016046R         JSB CALMV      CALC, NO, WDS, TO MOVE
0046  00033 067756R         LDB ARG5       DESTINATION BUFFER
0047  00034 017540R         JSB  MOVE
0048  00035 066374R         LDB RFLPO      READ FILE POSITION
0049  00036 047742R         ADB D14
0050  00037 062372R         LDA DESRN      DESIRED R,N,
0051  00040 002004          INA
0052  00041 170001          STA B,I        UPDATE N,R, TO BE PROCESSED
0053  00042 026002X         JMP EFCON      RETURN TO MAIN
0054  00043           READ2 EQU *
0055  00043 016366R         JSB PST1T      POST IF NECESSARY
0056  00044 016327R         JSB RDTS       READ DESIRED T/S
0057  00045 026024R         JMP READ1



0059* CALMV - CALC, MOVE ADDR,
0060* ENTER:
0061*          VALUES FROM CALAV
0062* EXIT:
0063*          A = POINTER TO CORRECT TRB
0064*
0065  00046 000000  CALMV NOP              CALC, MOVE ADDR
0066  00047 062455R         LDA RLGTH      RECORD LENGTH IN WORDS
0067  00050 003004          CMA,INA
0068  00051 072021X         STA MOVCT      PACK NO, OF WDS, TO MOVE
0069  00052 062460R         LDA STRNO      STARTING RECD, NO,
0070  00053 003004          CMA,INA
0071  00054 042372R         ADA DESRN      DESIRED RECD, NO,
0072  00055 066455R         LDB RLGTH
0073  00056 017656R         JSB MPY        CALC, RECORD LENGTH IN WORDS
0074  00057 000000          OCT 0          OCT 103001 FOR DEBUGGING
0075  00060 042461R         ADA STRPO      STARTING RECORD POSITION
0076  00061 126046R         JMP CALMV,I    RETURN
```

```
0078*
0079*          WRITE FUNCTION
0080*
0081   00062           FUN08 EQU *
0082   00062 017551R        JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0083   00063 002400         CLA
0084   00064 072373R        STA DESRN+1    INITIALIZE FLAG
0085   00065 016210R        JSB CKINL      CHECK AND INITIALIZE PARA, AND T
0086   00066           WRIT1 EQU *
0087   00066 066374R        LDB RFLPO      READ-FILE POSITION
0088   00067 016375R        JSB CALAV      CALC, ALL NECESSARY VALUES
0089   00070 016266R        JSB CKEOF      CHECK IF END-OF-FILE
0090   00071 026127R        JMP EOFWR      END-OF-FILE WRITE
0091   00072           WRIT3 EQU *
0092   00072 016305R        JSB CKRNO      CHECK RECORD NOS, IN CORE
0093   00073 026205R        JMP RNXTS      OUT-OF-RANGE, READ NEXT T/S
0094   00074 016046R        JSB CALMV      CALC, MOVE ADDR,
0095   00075 064000         LDB A          DESTINATION
0096   00076 063756R        LDA ARG5       SOURCE
0097   00077 017540R        JSB MOVE       "WRITE" PROPER RECORD
0098   00100 066462R        LDB CTRBP      CURRENT TRB POINTER
0099   00101 006004         INB
0100   00102 002404         CLA,INA
0101   00103 170001         STA B,I        SET "MUST BE WRITTEN" FLAG
0102   00104 066374R        LDB RFLPO      READ FILE POSITION
0103   00105 047743R        ADB D15
0104   00106 062372R        LDA DESRN      DESIRED RECD, NO,
0105   00107 003004         CMA,INA
0106   00110 140001         ADA B,I        HIGHEST RECD, NO, WRITTEN IN COR
0107   00111 002020         SSA            DESIRED .GT, HIGHEST?
0108   00112 026124R        JMP UDHRW      YES, UPDATE HRW IN CORE
0109   00113           WRIT2 EQU *
0110   00113 044052         ADB MD1
0111   00114 062372R        LDA DESRN      DESIRED R,N,
0112   00115 002004         INA
0113   00116 170001         STA B,I        NEXT RECORD TO BE ACCESSED
0114   00117 003004         CMA,INA
0115   00120 042457R        ADA FINRN      FINAL RECD, NO,
0116   00121 002020         SSA            NEXT .GT, FINAL(LAST RCD WRT)
0117   00122 016366R        JSB PST1T      YES, POST 1 TRB
0118   00123 026002X        JMP EFCON      RETURN TO MAIN
0119   00124           UDHRW EQU *         UPDATE HI RECD, WRITTEN IN CORE
0120   00124 062372R        LDA DESRN      DESIRED R,N,
0121   00125 170001         STA B,I        BUMP "HRW" INTO CORE
0122   00126 026113R        JMP WRIT2

0124   00127           EOFWR EQU *         END-OF-FILE WRITE ATTEMPT
0125   00127 066374R        LDB RFLPO      READ-FILE POINTER
0126   00130 044057         ADB D4
0127   00131 062372R        LDA DESRN      DESIRED R,N,
0128   00132 003004         CMA,INA
0129   00133 140001         ADA B,I        FILE SIZE
0130   00134 002020         SSA            .GT, ABSOLUTE EOF?
0131   00135 017717R        JSB ER21       YES, END-OF-FILE
0132   00136 047737R        ADB D11
0133   00137 062373R        LDA DESRN+1
```

```
0134   00140 002002          SZA               INSERT ZEROS PASS?
0135   00141 026151R         JMP INSZR         YES
0136   00142 160001          LDA B,I           "HRW" IN CORE
0137   00143 002004          INA
0138   00144 052372R         CPA DESRN         WRITE NEXT HIGHEST RECORD?
0139   00145 026072R         JMP WRIT3         YES
0140*  ZEROS MUST BE INSERTED IN BETWEEN RECORDS
0141   00146 066372R         LDB DESRN         REAL DESIRED R,N,
0142   00147 076373R         STB DESRN+1       SAVE AS FLAG
0143   00150 072372R         STA DESRN         "HRW"+1 IS TEMP, DESIRED
0144   00151           INSZR EQU *
0145   00151 016305R         JSB CKRNO         CHECK IF R,N, IN CORE
0146   00152 026205R         JMP RNXTS         NOT IN CORE, READ IT
0147   00153 062372R         LDA DESRN         "DESIRED"
0148   00154 003000          CMA
0149   00155 042373R         ADA DESRN+1       REAL
0150   00156 002021          SSA,RSS           "DESIRED" .GE. REAL?
0151   00157 026165R         JMP INSZ1         NO
0152   00160 062373R         LDA DESRN+1       REAL DESIRED R,N,
0153   00161 072372R         STA DESRN         RESTORE IT
0154   00162 002400          CLA
0155   00163 072373R         STA DESRN+1       RESET FLAG
0156   00164 026066R         JMP WRIT1
0157   00165           INSZ1 EQU *
0158   00165 016046R         JSB CALMV         CALC, MOVE ADDR,
0159   00166 070001          STA B
0160   00167 062455R         LDA RLGTH         RECORD LGTH, (IN WORDS)
0161   00170 003004          CMA,INA
0162   00171 017642R         JSB STZ           FILL 1 RECORD W/ ZEROS
0163   00172 066462R         LDB CTRBP         CURRENT TRB POINTER
0164   00173 006004          INB
0165   00174 003400          CCA
0166   00175 170001          STA B,I           SET "MBW" FLAG
0167   00176 066374R         LDB RFLPO         READ-FILE POSITION
0168   00177 047742R         ADB D14
0169   00200 134001          ISZ B,I           NEXT RECD BEING PROCESSED
0170   00201 006004          INB
0171   00202 134001          ISZ B,I           "HRW" IN CORE
0172   00203 036372R         ISZ DESRN         BUMP "DESIRED" R,N,
0173   00204 026066R         JMP WRIT1
0174   00205           RNXTS EQU *             READ NEXT T/S
0175   00205 016366R         JSB PST1T         POST IF NECESSARY
0176   00206 016327R         JSB RDTS          READ DESIRED T/S
0177   00207 026066R         JMP WRIT1
```

```
0179  00210 000000  CKINL NOP             CHECK INITIALIZATION PARAMETERS
0180  00211 063754R       LDA ARG3        ADDR. OF F.N.
0181  00212 017564R       JSB NAM0?       CHECK IF ZERO
0182  00213 067754R       LDB ARG3        ADDR. OF F.N.
0183  00214 017612R       JSB CKOPN       FILE OPEN?
0184  00215 017706R       JSB ER11        NO
0185  00216 076374R       STB RFLPO       READ-FILE POSITION
0186  00217 047742R       ADB D14
0187  00220 163755R       LDA ARG4,I      RECORD NO.
0188  00221 002021        SSA,RSS         BACKSPACE?
0189  00222 026231R       JMP CKN2        NO
0190  00223 140001        ADA B,I         NEXT RECORD TO BE PROCESSED
0191  00224 002020        SSA
0192  00225 017711R       JSB ER13
0193  00226 002003        SZA,RSS
0194  00227 017711R       JSB ER13
0195  00230 026233R       JMP CKN1
0196  00231         CKN2  EQU *
0197  00231 002003        SZA,RSS         SEQUENTIAL R/W?
0198  00232 160001        LDA B,I         YES, GET NEXT RCD. TO BE PROCESS
0199  00233         CKN1  EQU *
0200  00233 072372R       STA DESRN       PACK DESIRED R.N.
0201  00234 062374R       LDA RFLPO       FILE POSITION
0202  00235 040060        ADA D5
0203  00236 164000        LDB A,I         RECORD LENGTH (IN WORDS)
0204  00237 063756R       LDA ARG5        BUFFER AREA
0205  00240 017623R       JSB CKCLM       CHECK CORE LIMITS
0206  00241 017700R       JSB ER9         OUT-OF-LIMITS
0207  00242 066374R       LDB RFLPO       FILE POSITION
0208  00243 047737R       ADB D11
0209  00244 160001        LDA B,I         TRB NO.
0210  00245 040052        ADA MD1
0211  00246 064056        LDB D3
0212  00247 017656R       JSB MPY
0213  00250 042005X       ADA FTRBE       START OF TRB ENTRIES
0214  00251 072462R       STA CTRBP       CURRENT TRB POSITION
0215  00252 066462R       LDB CTRBP       CUR. TRB POINTER
0216  00253 044055        ADB D2
0217  00254 076265R       STB CKIN1       SAVE POINTER TO FILE TEMPORARILY
0218  00255 160001        LDA B,I
0219  00256 052374R       CPA RFLPO       THIS TRB FOR THIS FILE?
0220  00257 026263R       JMP CKN3        YES
0221  00260 016366R       JSB PST1T       POST IF NECESSARY
0222  00261 062374R       LDA RFLPO
0223  00262 172265R       STA CKIN1,I     INITL. TRB FOR THIS FILE
0224  00263         CKN3  EQU *
0225  00263 066374R       LDB RFLPO       READ-FILE POSITION
0226  00264 126210R       JMP CKINL,I     RETURN
0227  00265 000000  CKIN1 OCT 0           TEMP STROAGE


0229* CKEOF - CHECK IF ATTEMPTED WRITE AFTER END-OF-FILE
0230* EXIT:
0231*          P+1 = END-OF-FILE
0232*          P+2 = VALID POSITION
```

```
0233*
0234   00266 000000  CKEOF NOP             CHECK FOR END-OF-FILE
0235   00267 066374R       LDB RFLPO       READ-FILE POSITION.
0236   00270 047743R       ADB D15
0237   00271 160001        LDA B,I         HIGHEST R.N. WRITTEN INTO CORE
0238   00272 002002        SZA             1ST PASS?
0239   00273 026300R       JMP *+5         NO
0240   00274 044044        ADB MD7
0241   00275 160001        LDA B,I         HIGHEST R.N. WRITTEN ONTO DISC
0242   00276 002003        SZA,RSS         1ST PASS?
0243   00277 126266R       JMP CKEOF,I     YES, EOF
0244   00300 003000        CMA
0245   00301 042372R       ADA DESRN       DESIRED R.N.
0246   00302 002020        SSA             IS DES. R.N. .LT. HRW?
0247   00303 036266R       ISZ CKEOF       YES, P+2
0248   00304 126266R       JMP CKEOF,I     NO, END-OF-FILE RETURN



0250* CKRNO - CHECK IF R.N. IN CORE
0251* EXIT:
0252*          P+1 = READ NEXT T/S
0253*          P+2 = RECORD NO. IN CORE
0254*
0255   00305 000000  CKRNO NOP             CHECK IF R.N. IN CORE
0256   00306 066374R       LDB RFLPO       READ-FILE POSITION
0257   00307 047741R       ADB D13
0258   00310 160001        LDA B,I         T/S CUR. IN CORE
0259   00311 002003        SZA,RSS         1ST TIME THRU?
0260   00312 126305R       JMP CKRNO,I     YES, READ NEW T/S
0261   00313 062372R       LDA DESRN       DESIRED R.N.
0262   00314 003000        CMA
0263   00315 042460R       ADA STRNO       "START" R.N.
0264   00316 002021        SSA,RSS         DES. .LT. START?
0265   00317 126305R       JMP CKRNO,I     YES, READ NEXT T/S
0266   00320 062372R       LDA DESRN       DESIRED R.N.
0267   00321 003004        CMA,INA
0268   00322 042457R       ADA FINRN       "FINAL" R.N.
0269   00323 002020        SSA             DES. .GT. FINAL?
0270   00324 126305R       JMP CKRNO,I     YES, READ NEXT T/S
0271   00325 036305R       ISZ CKRNO       P+2
0272   00326 126305R       JMP CKRNO,I     RETURN



0274   00327 000000  RDTS  NOP             READ DESIRED T/S
0275   00330 062372R       LDA DESRN       DESIRED R.N.
0276   00331 040052        ADA MD1
0277   00332 066455R       LDB RLGTH
0278   00333 017656R       JSB MPY
0279   00334 017661R       JSB DIV
0280   00335 001747R       DEF D128
0281   00336 102201        SOC             OVERFLOW?
0282   00337 017722R       JSB ER23        YES, ERROR SHOULD NOT OCCUR
0283   00340 070001        STA B           SAVE NO. SECT TO REACH R.N.
0284   00341 062374R       LDA RFLPO       READ-FILE POSITION
```

```
0285   00342 040056          ADA D3
0286   00343 160000          LDA A,I         PICK UP STARTING T/S
0287   00344 017634R         JSB T.STS       CONV. TO SECTORS
0288   00345 040001          ADA B           DESIRED NO. SECT TO REACH R,N.
0289   00346 017637R         JSB STT.S       CONV. BACK TO T/S
0290   00347 066011X         LDB TRBSZ       NO. OF SECT/TRB
0291   00350 076024X         STB GNS         NO. SECT. FOR GENERAL R/W
0292   00351 066374R         LDB RFLPO       READ-FILE POSITION
0293   00352 047741R         ADB D13
0294   00353 170001          STA B,I         UPDATE NEW T/S IN CORE
0295   00354 044052          ADB MD1
0296   00355 164001          LDB B,I         SUB. CH. NO.
0297   00356 076023X         STB GSC         SUB. CH. FOR GENERA R/W
0298   00357 166462R         LDB CTRBP,I     PICK UP POINTER TO O.T.
0299   00360 017645R         JSB GRTXX       READ T/S W/ DESIRED R,N.
0300   00361 066374R         LDB RFLPO       READ-FILE POSITION
0301*   REINITIALIZE PART OF TRIPLET BECAUSE OF POSSIBLE POSTING
0302   00362 062462R         LDA CTRBP       CUR. TRB POINTER
0303   00363 040055          ADA D2
0304   00364 174000          STB A,I         POINTER TO FILE IN O.T.
0305   00365 126327R         JMP RDTS,I      RETURN


0307   00366 000000  PST1T NOP              POST 1 TRB IF NECESSARY
0308   00367 066462R       LDB CTRBP       CURRENT TRB POSITION
0309   00370 017546R       JSB POSTW       POST WRITE IF NECESSARY
0310   00371 126366R       JMP PST1T,I     RETURN
0311   00372 000000  DESRN OCT 0,0         DESIRED RECORD NO.
       00373 000000
0312   00374 000000  RFLPO OCT 0           READ-FILE POSITION (WRITE ALSO)
```

```
0314* CALAV - CALC. ALL VALUES PERTINENT TO READ/WRITE ROUTINES
0315* ENTER:
0316*         B = FILE POSITION IN OPEN TABLE
0317* EXIT:
0318*         RLGTH = RECORD LENGTH (IN WORDS)
0319*         STRNO = STARTING RECORD NO. FOR CURRENT T/S
0320*         STRPO = STARTING RECORD NO. POSITION
0321*         FINRN = FINAL RECORD NO. FOR CURRENT T/S
0322*
0323  00375 000000  CALAV NOP             CALC. ALL VALUES FOR R/W ROUTINE
0324  00376 076454R       STB CALPO       FILE POSITION FOR THIS ROUTINE
0325  00377 044060        ADB D5
0326  00400 164001        LDB B,I         RECORD LENGTH (IN WORDS)
0327  00401 076455R       STB RLGTH
0328  00402 066454R       LDB CALPO       FILE POSITION
0329  00403 047741R       ADB D13
0330  00404 160001        LDA B,I         T/S CURRENTLY IN
0331  00405 002003        SZA,RSS         1ST PASS?
0332  00406 044041        ADB MD10        YES,BIAS BACK TO START T/S LOC
0333  00407 160001        LDA B,I         T/S "CURRENTLY IN"
0334  00410 017634R       JSB T.STS       CONV. TO SECT.
0335  00411 070001        STA B
0336  00412 062454R       LDA CALPO       FILE POSITION
0337  00413 040056        ADA D3
0338  00414 160000        LDA A,I         STARTING T/S FOR THIS FILE
0339  00415 017634R       JSB T.STS       CONV. TO SECTORS
0340  00416 003004        CMA,INA
0341  00417 040001        ADA B           CALC. DELTA SECTORS
0342  00420 072456R       STA DELTS       SAVE DELTA SECTORS
0343  00421 042011X       ADA TRBSZ       TRB SIZE (IN SECT.)
0344  00422 067747R       LDB D128
0345  00423 017656R       JSB MPY
0346  00424 017661R       JSB DIV
0347  00425 000455R       DEF RLGTH
0348  00426 002003        SZA,RSS
0349  00427 017725R       JSB ER26        RECORD LENGTH .GT. 1 TRB
0350  00430 102201        SOC             OVERFLOW?
0351  00431 063750R       LDA MAXRC       MAX. RECORD NO.
0352  00432 072457R       STA FINRN       SAVE FINAL RECORD NO.
0353  00433 062456R       LDA DELTS       DELTA SECTORS
0354  00434 067747R       LDB D128
0355  00435 017656R       JSB MPY
0356  00436 017661R       JSB DIV
0357  00437 000455R       DEF RLGTH
0358  00440 102201        SOC             OVERFLOW?
0359  00441 017722R       JSB ER23        YES, ERROR SHOULD NOT OCCUR
0360  00442 002004        INA
0361  00443 006002        SZB
0362  00444 002004        INA
0363  00445 072460R       STA STRNO       STARTING RECORD NO.
0364  00446 007004        CMB,INB
0365  00447 006002        SZB
0366  00450 046455R       ADB RLGTH       RECD. LENGTH (IN WORDS)
0367  00451 146462R       ADB CTRBP,I     CUR. TRB POSITION
0368  00452 076461R       STB STRPO       STARTING RECORD POSITION
0369  00453 126375R       JMP CALAV,I     RETURN
```

```
0370  00454 000000  CALPO OCT 0          FILE POSITION
0371  00455 000000  RLGTH OCT 0          RECORD LENGTH (IN WORDS)
0372  00456 000000  DELTS OCT 0          DELTA SECTORS
0373  00457 000000  FINRN OCT 0          FINAL RECORD NO.
0374  00460 000000  STRNO OCT 0          STARTING RECORD NO.
0375  00461 000000  STRPO OCT 0          STARTING RECORD POSITION
0376  00462 000000  CTRBP OCT 0          CURRENT TRB POSITION
```

```
0378*
0379*          RESET FUNCTION
0380*
0381   00463           FUN09 EQU *
0382   00463 017551R         JSB CKV8U      CHECK IF VALID DEFINE PREVIOUSLY
0383   00464 063754R         LDA ARG3       ADDR OF FILE NAME
0384   00465 017554R         JSB NAM0?      CHECK NAME
0385   00466 067754R         LDB ARG3       ADDR. OF FILE NAME
0386   00467 017612R         JSB CKOPN      OPEN?
0387   00470 017706R         JSB ER11       NO
0388   00471 076556R         STB REST1      SAVE OPEN TABLE ENTRY ADDR.
0389   00472 044065          ADB D10        INCREMENT TO PACK NO.
0390   00473 163755R         LDA ARG4,I     GET REQUESTED PACK NO.
0391   00474 150001          CPA B,I        PACK NO.'S EQUAL ?
0392   00475 002001          RSS            YES
0393   00476 017714R         JSB ER15       NO
0394   00477 017543R         JSB POST       POST TRB
0395   00500 066556R         LDB REST1      GET OPEN TABLE ENTRY ADDR
0396   00501 044065          ADB D10        INCREMENT TO PACK NO.
0397   00502 160001          LDA B,I        GET PACK NO.
0398   00503 002003          SZA,RSS        PN000 ?
0399   00504 026523R         JMP CRINC      YES
0400   00505 044055          ADB D2         INCREMENT TO SUBCHANNEL FIELD
0401   00506 160001          LDA B,I        GET THE SUBCHANNEL
0402   00507 072020X         STA PAKSC      INITIALIZE SUBCHANNEL
0403   00510 066556R         LDB REST1      GET OPEN TABLE ENTRY ADDR
0404   00511 017576R         JSB GETDE      READ DIRECTORY ENTRY
0405   00512 066006X         LDB CNAME      GET ADDR OF ENTRY
0406   00513 044063          ADB D8         BIAS TO "HRA" ON DISC
0407   00514 163756R         LDA ARG5,I     RECORD NO.
0408   00515 170001          STA B,I        CHANGE "HRA" ON DISC
0409   00516 016525R         JSB CNGRN      CHANGE RECORD NO.
0410   00517 002404          CLA,INA        WRITE INDICATOR
0411   00520 066020X         LDB PAKSC      SUBCHANNEL
0412   00521 017653R         JSB PRWIO      WRITE BACK DIRECTORY ENTRY
0413   00522 026002X         JMP EFCON      RETURN TO MAIN
0414   00523           CRINC EQU *          CHANGE RECORD IN CORE
0415   00523 016525R         JSB CNGRN      CHANGE RECORD NO.
0416   00524 026002X         JMP EFCON      RETURN TO MAIN

0418   00525 000000  CNGRN   NOP            CHANGE RECORD NO.
0419   00526 163756R         LDA ARG5,I     RESET RECORD NO.
0420   00527 002020          SSA            VALID?
0421   00530 017703R         JSB ER10       NO
0422   00531 003004          CMA,INA
0423   00532 066556R         LDB REST1      GET ADDR OF OPEN TABLE ENTRY
0424   00533 047743R         ADB D15        INCREMENT TO HRA IN CORE FIELD
0425   00534 140001          ADA B,I        "HRA"
0426   00535 002020          SSA            .LE.?
0427   00536 017703R         JSB ER10       NO
0428   00537 163756R         LDA ARG5,I     RESET RECORD NO.
0429   00540 170001          STA B,I        RESET RECORD
0430   00541 044044          ADB MD7        BIAS TO "HRA" ON DISC
0431   00542 170001          STA B,I        CHANGE "HRA" ON DISC
0432   00543 044061          ADB D6         INCREMENT TO NXT RECD FIELD
0433   00544 003004          CMA,INA
```

```
0434   00545 140001          ADA B,I
0435   00546 002020          SSA                 RESET NO. < NXT RECD TO PROCESS
0436   00547 126525R         JMP CNGRN,I         NO
0437   00550 002003          SZA,RSS
0438   00551 126525R         JMP CNGRN,I         NO
0439   00552 163756R         LDA ARG5,I          GET RESET NO.
0440   00553 002004          INA                 INCREMENT FOR NEXT RECD TO PROCE
0441   00554 170001          STA B,I             STORE NEW NEXT RECD TO PROCESS V
0442   00555 126525R         JMP CNGRN,I
0443   00556 000000  REST1    OCT 0,0,0          SECT. NO.
       00557 000000
       00560 000000
```

```
0445*
0446*          STATUS FUNCTION
0447*
0448  00561           FUN10 EQU.*
0449  00561 017551R         JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0450  00562 163754R         LDA ARG3,I     STATUS FUNCTION NO.
0451  00563 002020          SSA
0452  00564 017722R         JSB ER23
0453  00565 003004          CMA,INA
0454  00566 042606R         ADA NOSTF      NO. OF STATUS FUNCTIONS
0455  00567 002020          SSA            .GT. MAX NO.?
0456  00570 017722R         JSB ER23
0457  00571 163754R         LDA ARG3,I     FUNCTION NO.
0458  00572 002003          SZA,RSS
0459  00573 017722R         JSB ER23
0460  00574 042576R         ADA ASTAT      ADDR.OF STATUS FUNCTION TABLE
0461  00575 124000          JMP A,I
0462  00576 100576R ASTAT   DEF *,I
0463  00577 000607R         DEF STAT1
0464  00600 000657R         DEF STAT2
0465  00601 000700R         DEF STAT3
0466  00602 000726R         DEF STAT4
0467  00603 001003R         DEF STAT5
0468  00604 001051R         DEF STAT6
0469  00605 001143R         DEF STAT7
0470  00606 000007  NOSTF   ABS *-ASTAT-1  NO. OF STATUS FUNCTIONS


0472  00607           STAT1 EQU *          FILE DIRECTORY INFORMATION
0473  00607 017543R         JSB POST
0474  00610 017234R         JSB STAPN      SEARCH FOR PACK NO.
0475  00611 026642R         JMP S1PAK      SYSTEM PACK
0476  00612 017257R         JSB SRCD2      FILE FOUND?
0477  00613 017274R         JSB TNXTP      NO
0478  00614           STA1A EQU *
0479  00614 076644R         STB SFILP      STATUS-FILE POSITION
0480  00615 063760R         LDA ARG7       ADDR. OF STATB
0481  00616 067735R         LDB MXWPE      MAX. WDS/ENTRY
0482  00617 006004          INB
0483  00620 017623R         JSB CKCLM      CHECK CORE LIMITS
0484  00621 017700R         JSB ER9        OUT-OF- LIMITS
0485  00622 062644R         LDA SFILP      STATUS-FILE POSITION
0486  00623 067735R         LDB MXWPE      MAX. WDS/ENTRY
0487  00624 007004          CMB,INB
0488  00625 076021X         STB MOVCT      NO. OF WORDS TO MOVE
0489  00626 067760R         LDB ARG7       ADDR. OF STATB
0490  00627 006004          INB
0491  00630 017540R         JSB MOVE       MOVE DIR. INFO. TO STATB+1
0492  00631 044050          ADB MD3
0493  00632 002400          CLA
0494  00633 170001          STA B,I        CLEAR SECURITY CODE
0495  00634 163756R         LDA ARG6,I     PAKNO
0496  00635 002021          SSA,RSS        ALL PACKS?
0497  00636 026002X         JMP EFCON      NO, RETURN TO MAIN
0498  00637 062016X         LDA DPNO       GET PACK NO.
```

```
0499  00640 173760R        STA ARG7,I    PACK STATB
0500  00641 026002X        JMP EFCON     RETURN TO MAIN
0501  00642           S1PAK EQU *
0502  00642 016645R        JSB TFOPN     CHECK IF TEMP. FILE OPEN
0503  00643 026614R        JMP STA1A
0504  00644 000000  SFILP   OCT 0         STATUS-FILE POSITION

0506  00645 000000  TFOPN   NOP           CHECK IF TEMP. FILE OPEN
0507  00646 067755R        LDB ARG4      ADDR OF FILE NAME
0508  00647 017612R        JSB CKOPN     CHECK IF FILE OPEN
0509  00650 017667R        JSB ER3       NOT OPEN
0510  00651 044065         ADB D10
0511  00652 160001         LDA B,I       PACK NO.
0512  00653 002002         SZA           SYSTEM PACK?
0513  00654 017667R        JSB ER3       NO
0514  00655 044041         ADB MD10
0515  00656 126645R        JMP TFOPN,I   RETURN



0517  00657           STAT2  EQU *        OPENED FILE?
0518  00657 064055         LDB D2        NO. WDS TO CHECK
0519  00660 016776R        JSB CKSLM     CHECK STATUS LIMITS
0520  00661 067755R        LDB ARG4      ADDR. OF FILE NAME
0521  00662 017612R        JSB CKOPN     CHECK IF OPEN
0522  00663 002405         CLA,INA,RSS   NOT OPEN
0523  00664 002400         CLA
0524  00665 076644R        STB SFILP     POINTER TO O.T.
0525  00666 067760R        LDB ARG7      ADDR. OF STATB
0526  00667 006004         INB
0527  00670 170001         STA B,I       PACK OPEN STATUS
0528  00671 002002         SZA           STORE PACK NO. IF OPEN
0529  00672 026002X        JMP EFCON     RETURN TO MAIN
0530  00673 066644R        LDB SFILP     POINTER TO O.T.
0531  00674 044065         ADB D10
0532  00675 160001         LDA B,I       PACK NO.
0533  00676 173760R        STA ARG7,I    STORE PACK NO.
0534  00677 026002X        JMP EFCON RETURN TO MAIN



0536  00700           STAT3  EQU *        SECURITY CODE CHECK
0537  00700 064055         LDB D2        NO. WDS. TO CHECK
0538  00701 016776R        JSB CKSLM     CHECK STATUS LIMITS
0539  00702 017234R        JSB STAPN     STATUS PACK NO. SEARCH
0540  00703 026711R        JMP STA3A     SYSTEM PACK
0541  00704 017257R        JSB SRCD2     FILE FOUND?
0542  00705 017274R        JSB TNXTP     GET NEXT PACK NO.
0543  00706 062016X        LDA DPNO      GET THE DECIMAL VALUE OF PACK NO
0544  00707 173760R        STA ARG7,I    PACK STATB
0545  00710 026713R        JMP STA3B
0546  00711           STA3A  EQU *
0547  00711 173760R        STA ARG7,I    STORE PACK NO.
0548  00712 016645R        JSB TFOPN     CHECK IF TEMP. FILE OPEN
0549  00713           STA3B  EQU *
0550  00713 063760R        LDA ARG7      ADDR. OF STATB
```

```
0551   00714 002004          INA
0552   00715 160000          LDA A,I         SECURITY CODE TO BE CHECKED
0553   00716 044061          ADB D6          BIAS TO EXISTING S.C.
0554   00717 150001          CPA B,I         DOES SECURITY CODE CHECK?
0555   00720 002401          CLA,RSS         YES
0556   00721 002404          CLA,INA
0557   00722 067760R         LDB ARG7        ADDR. OF STATB
0558   00723 044055          ADB D2
0559   00724 170001          STA B,I         PACK SECURITY CODE STATUS
0560   00725 026002X         JMP EFCON       RETURN TO MAIN



0562   00726           STAT4 EQU *           NO. SECT. LEFT IN FILE
0563   00726 064055          LDB D2          NO. WDS. TO CHECK
0564   00727 016776R         JSB CKSLM       CHECK STATUS LIMITS
0565   00730 067755R         LDB ARG4        ADDR. OF FILE NAME
0566   00731 017612R         JSB CKOPN       CHECK IF OPEN
0567   00732 026764R         JMP CKDIS       CHECK IF FILE ON DISC
0568   00733 044065          ADB D10
0569   00734 160001          LDA B,I         PACK NO.
0570   00735 002002          SZA             TEMP. FILE CURRENTLY OPEN?
0571   00736 026763R         JMP CKDIS-1     NO, POST BEFORF CHECKING
0001   00737 153756R         CPA ARG5,I      TEMP. FILE REQUESTED?
0002   00740 002001          RSS             YES
0003   00741 026764R         JMP CKDIS       CHECK DISC
0004   00742 173760R         STA ARG7,I      STORE PACK NO.
0005   00743 044060          ADB D5
0006   00744 160001          LDA B,I         HIGHEST RECORD ACCESSED IN CORE
0007   00745 047736R         ADB MD11
0008   00746          STA4A  EQU *
0009   00746 003004          CMA,INA
0010   00747 140001          ADA B,I         FILE LENGTH (IN RECORDS)
0011   00750 006004          INB
0012   00751 164001          LDB B,I         RECORD LENGTH (IN WORDS)
0013   00752 017656R         JSB MPY
0014   00753 017661R         JSB DIV
0015   00754 001747R         DEF D128
0016   00755 102201          SOC             OVERFLOW?
0017   00756 017722R         JSB ER23        YES, ERROR SHOULD NOT OCCUR
0018   00757 067760R         LDB ARG7        ADDR. OF STATB
0019   00760 006004          INB
0020   00761 170001          STA B,I         PACK NO. SECT. LEFT INTO STATB+1
0021   00762 026002X         JMP EFCON       RETURN TO MAIN
0022   00763 017543R         JSB POST
0023   00764          CKDIS  EQU *           CHECK IF FILE ON DISC
0024   00764 017234R         JSB STAPN       SEARCH FOR PACK NO.
0025   00765 017672R         JSB ER6
0026   00766 017257R         JSB SRCD2       FILE FOUND ?
0027   00767 017274R         JSB TNXTP       GET NEXT PACK NO.
0028   00770 062016X         LDA DPNO        GET THE DECIMAL VALUE OF PACK NO
0029   00771 173760R         STA ARG7,I      PACK STATB
0030   00772 044063          ADB D8
0031   00773 160001          LDA B,I         HIGHEST RECORD ACCESSED ON DISC
0032   00774 044047          ADB MD4
0033   00775 026746R         JMP STA4A
```

```
0035  00776 000000  CKSLM NOP           CHECK STATUS LIMITS
0036  00777 063760R       LDA ARG7      ADDR. OF STATB
0037  01000 017623R       JSB CKCLM     CHECK CORE LIMITS
0038  01001 017700R       JSB ER9       OUT-OF-LIMITS
0039  01002 126776R       JMP CKSLM,I



0041  01003          STAT5 EQU *         SECTORS LEFT ON PACK
0042  01003 064055        LDB D2        NO. WDS. TO CHECK
0043  01004 016776R       JSB CKSLM
0044  01005 163756R       LDA ARG5,I    PAKNO
0045  01006 002020        SSA
0046  01007 017714R       JSB ER15
0047  01010 017253R       JSB ST6PN     STATUS SEARCH FOR P.N.
0048  01011 027033R       JMP S5PAK     SYSTEM PACK
0049  01012 044056        ADB D3       INCREMENT TO STARTING T/S FIELD
0050  01013 160001        LDA B,I       GET STARTING T/S
0051  01014 017650R       JSB PRETS     PREPARE T/S FOR I/O
0052  01015 002400        CLA           READ
0053  01016 066020X       LDB PAKSC     GET SUBCHANNEL
0054  01017 017653R       JSB PRWIO     READ FIRST SECTOR OF EFMP PACK N
0055  01020 066027X       LDB ASBUF     GET ADDR OF DIRECTORY ENTRY
0056  01021 044057        ADB D4        INCREMENT TO SIZE FIELD
0057  01022 160001        LDA B,I       GET SIZE
0058  01023 044057        ADB D4        INCREMENT TO LSA FIELD
0059  01024 164001        LDB B,I       GET LSA
0060  01025 007004        CMB,INB       CALCULATE SECTORS UNUSED
0061  01026 040001        ADA B
0062  01027          STA5A EQU *
0063  01027 067760R       LDB ARG7      ADDR. OF STATB
0064  01030 006004        INB
0065  01031 170001        STA B,I       PACK NO. SECT. LEFT INTO STATB+1
0066  01032 026002X       JMP EFCON     RETURN TO MAIN
0067  01033          S5PAK EQU *
0068  01033 064155        LDB SYSSC     GET SYSTEM SUBCHANNEL
0069  01034 076020X       STB PAKSC     STORE SUBCHANNEL
0070  01035 017573R       JSB SETD2     SET UP FOR DOS-M DIR.
0071  01036 066022X       LDB APN00     GET ADDR OF NAME
0072  01037 017615R       JSB SRCD3      SEARCH DIRECTORY
0073  01040 027047R       JMP STA5B     NO PN000
0074  01041 044057        ADB D4
0075  01042 160001        LDA B,I       FILE LENGTH (IN SECTORS)
0076  01043 066004X       LDB NSUWA     NO. SECT. USED IN W/A
0077  01044 007004        CMB,INB
0078  01045 040001        ADA B         CALC. NO. SECT. LEFT IN W/A
0079  01046 027027R       JMP STA5A
0080  01047          STA5B EQU *
0081  01047 002400        CLA
0082  01050 027027R       JMP STA5A



0084  01051          STAT6 EQU *         NAME OF NTH. FILE
0085  01051 063755R       LDA ARG4      POINTER TO NAME BUFFER
0086  01052 064056        LDB D3
```

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0087  01053 017623R          JSB CKCLM      CHECK CORE LIMITS
0088  01054 017700R          JSB ER9        OUT-OF-LIMITS
0089  01055 163756R          LDA ARG5,I     PAKNO
0090  01056 002003           SZA,RSS
0091  01057 017714R          JSB ER15
0092  01060 002020           SSA
0093  01061 017714R          JSB ER15
0094  01062 060050           LDA MD3        NO. OF WDS TO CLEAR
0095  01063 067755R          LDB ARG4       POINTER TO NAME BUFFER
0096  01064 017642R          JSB STZ
0097  01065 017253R          JSB ST6PN      SEARCH FOR P.N.
0098  01066 017714R          JSB ER15       BRANCH DOES NOT OCCUR
0099  01067 163760R          LDA ARG7,I     DESIRED FILE NO. "N"
0100  01070 002003           SZA,RSS
0101  01071 017722R          JSB ER23
0102  01072 002020           SSA
0103  01073 017722R          JSB ER23
0104  01074 002404           CLA,INA
0105  01075 073233R          STA ENTNO      ENTRY NO. IN DIRECTORY
0106  01076 063531R          LDA ADPNE      GET ADDR OF DUMMY PACK NO. ENTRY
0107  01077 072007X          STA PNEAD      STORE ADDR
0108  01100 044056           ADB D3         INCREMENT TO STARTING T/S FIELD
0109  01101 160001           LDA B,I        GET STARTING T/S
0110  01102 066007X          LDB PNEAD      GET ADDR OF PACK NO. ENTRY
0111  01103 170001           STA B,I        STORE STARTING T/S
0112  01104 017570R          JSB SETD1      SET UP FOR EFMP SEARCH
0113  01105 007400           CCB            NO COMPARE SWITCH
0114  01106 076013X          STB NOPAS      STORE SWITCH
0115  01107 017615R          JSB SRCD3      SEARCH DIRECTORY
0116  01110 017717R          JSB ER21       END-OF-FILE
0117  01111 077135R          STB ADRFL      ADDR. OF FILE
0118  01112 062003X          LDA AINVC      POINTER TO INVALID CHAR.
0119  01113 017626R          JSB CMPAR      COMPARE NAMES
0120  01114 027116R          JMP *+2
0121  01115 027137R          JMP STA6A
0122  01116 063233R          LDA ENTNO      CURRENT DIR. ENTRY NO.
0123  01117 163760R          CPA ARG7,I     DESIRED FILE POSITION?
0124  01120 027123R          JMP *+3
0125  01121 037233R          ISZ ENTNO      BUMP DIR. ENTRY NO.
0126  01122 027137R          JMP STA6A
0127  01123 060050           LDA MD3
0128  01124 072021X          STA MOVCT      NO. WDS. TO MOVE
0129  01125 063135R          LDA ADRFL      ADDR. OF FILE IN $BUF
0130  01126 067755R          LDB ARG4       DESTINATION BUFFER
0131  01127 017540R          JSB MOVE       INSERT FILE NAME OF NTH FILE
0132  01130 044052           ADB MD1
0133  01131 160001           LDA B,I        5TH CHAR, LO 8 BITS
0134  01132 010075           AND H8BT       SAVE ONLY 5TH CHAR
0135  01133 170001           STA B,I        RESTORE IT
0136  01134 026002X          JMP EFCON      RETURN TO MAIN
0137  01135 000000  ADRFL    OCT 0,0        ADDR. OF FILE
      01136 000000
0138  01137         STA6A    EQU *
0139  01137 062026X          LDA SRCDR      GET RETURN ADDR
0140  01140 040052           ADA MD1        SET TO ORIGINAL ADDR
0141  01141 072026X          STA SRCDR      STORE UPDATED RETURN ADDR
```

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0142  01142 026014X        JMP EBIAS     GET NEXT ENTRY



0144  01143          STAT7 EQU *
0145  01143 163755R        LDA ARG4,I    GET SUBCHANNEL
0146  01144 002020         SSA           NEGATIVE ?
0147  01145 017722R        JSB ER23      YES
0148  01146 003004         CMA,INA
0149  01147 040156         ADA SCCNT
0150  01150 002020         SSA           LEGAL VALUE FOR SUBCHANNEL
0151  01151 017722R        JSB ER23      NO
0152  01152 163755R        LDA ARG4,I    GET THE SUBCHANNEL
0153  01153 072020X        STA PAKSC     STORE SUBCHANNEL
0154  01154 163760R        LDA ARG7,I    GET ENTRY NUMBER
0155  01155 002003         SZA,RSS       ZERO ?
0156  01156 017722R        JSB ER23      YES
0157  01157 002020         SSA           NEGATIVE
0158  01160 017722R        JSB ER23      YES
0159  01161 002404         CLA,INA
0160  01162 073233R        STA ENTNO     INITIALIZE COUNTER
0161  01163 017573R        JSB SETD2     SET UP FOR DOS-M SEARCH
0162  01164 007400         CCB
0163  01165 076013X        STB NOPAS     NO COMPARE SWITCH
0164  01166 017615R        JSB SRCD3     SEARCH DIRECTORY
0165  01167 017717R        JSB ER21      END OF DIRECTORY
0166  01170 062017X        LDA PN
0167  01171 150001         CPA B,I       1ST TWO CHARS OF NAME EQUAL 'PN'
0168  01172 002001         RSS           YES
0169  01173 027223R        JMP GTNX1     NO
0170  01174 044055         ADB D2        INCREMENT TO 3RD WORD OF NAME
0171  01175 160001         LDA B,I       GET TYPE FILED
0172  01176 010073         AND L7BT      CLEAR MEANINGLESS BITS
0173  01177 053737R        CPA B13       ASCII ?
0174  01200 027204R        JMP AINIT     YES
0175  01201 050065         CPA B12       BINARY ?
0176  01202 027206R        JMP NINIT     YES
0177  01203 027223R        JMP GTNX1     NO
0178  01204          AINIT EQU *
0179  01204 002400         CLA           INITIALIZED INDICATOR
0180  01205 002001         RSS
0181  01206          NINIT EQU *
0182  01206 002404         CLA,INA       UNINITIALIZED INDICATOR
0183  01207 077232R        STB SVDEA     SAVE ENTRY ADDR
0184  01210 067755R        LDB ARG4      GET ADDR OF RETURN BUFFER
0185  01211 170001         STA B,I       STORE INDICATOR
0186  01212 063232R        LDA SVDEA     RESTORE ADDR
0187  01213 040052         ADA MD1       BACK UP TO 3RD CHAR
0188  01214 017604R        JSB CNPND     IS IT DECIMAL ?
0189  01215 027223R        JMP GTNX1     NO
0190  01216 067233R        LDB ENTNO     GET ENTRY NO.
0191  01217 157760R        CPB ARG7,I    EQUAL TO REQUESTED NO. ?
0192  01220 027227R        JMP SRET1     YES
0193  01221 006004         INB           INCREMENT COUNTER
0194  01222 077233R        STB ENTNO
0195  01223          GTNX1 EQU *
```

```
0196  01223 062026X        LDA SRCDR      GET RETURN ADDR
0197  01224 040052         ADA MD1        SET TO ORIGINAL ADDR
0198  01225 072026X        STA SRCDR      STORE UPDATED RETURN ADDR
0199  01226 026015X        JMP GTNXE      GET NEXT ENTRY
0200  01227          SRET1  EQU *
0201  01227 067756R        LDB ARG5       GET ADDR OF RETURN BUFFER
0202  01230 170001         STA B,I        STORE PACK NO.
0203  01231 026002X        JMP EFCON      RETURN
0204  01232 000000   SVDEA  BSS 1         SAVE ADDR OF ENTRY
0205  01233 000000   ENTNO  BSS 1         ENTRY NO.



0207  01234 000000   STAPN  NOP
0208  01235 063755R        LDA ARG4       GET ADDR OF FILE NAME
0209  01236 017554R        JSB NAM0?      CHECK NAME
0210  01237          GARG5  EQU *
0211  01237 163756R        LDA ARG5,I     GET PACK NO
0212  01240 017557R        JSB CKPN       CHECK PACK NO
0213  01241 002003         SZA,RSS        PN000 ?
0214  01242 127234R        JMP STAPN,I    YES
0215  01243 163756R        LDA ARG5,I     GET PACK NO.
0216  01244 017607R        JSB GETPN      PACK NO. AVAILABLE ?
0217  01245 017672R        JSB ER6        NO
0218  01246 077232R        STB SVDEA      SAVE DIRECTORY ENTRY ADDR
0219  01247 017562R        JSB SVPNS      SAVE PACK NO. SEARCH ENVIRONMENT
0220  01250 067232R        LDB SVDEA      RESTORE DIRECTORY ENTRY ADDR
0221  01251 037234R        ISZ STAPN      P+2
0222  01252 127234R        JMP STAPN,I    RETURN
0223  01253 000000   ST6PN  NOP
0224  01254 063253R        LDA ST6PN      GET RETURN ADDR
0225  01255 073234R        STA STAPN      STORE RETURN ADDR
0226  01256 027237R        JMP GARG5      CHECK PACK NO.
0227  01257 000000   SRCD2  NOP
0228  01260 063531R        LDA ADPNE      GET ADDR OF DUMMY PACK NO. ENTRY
0229  01261 072007X        STA PNEAD      STORE ADDR
0230  01262          SNXTD  EQU *
0231  01262 044056         ADB D3         INCREMENT TO STARTING T/S FIELD
0232  01263 160001         LDA B,I        GET STARTING T/S
0233  01264 066007X        LDB PNEAD      STORE ITIN PACK NO. ENTRY
0234  01265 170001         STA B,I
0235  01266 017570R        JSB SETD1      SET UP FOR EFMP SEARCH
0236  01267 067755R        LDB ARG4       GET ADDR OF FILE NAME
0237  01270 017615R        JSB SRCD3      FILE NAME FOUND ?
0238  01271 127257R        JMP SRCD2,I    NO, RETURN P+1
0239  01272 037257R        ISZ SRCD2      P+2
0240  01273 127257R        JMP SRCD2,I    RETURN
0241  01274 000000   TNXTP  NOP
0242  01275 163756R        LDA ARG5,I     GET PACK NO.
0243  01276 002021         SSA,RSS        TRY ALL PACKS ?
0244  01277 017667R        JSB ER3        NO
0245  01300 017601R        JSB REPNS      RESTORE PACK NO. SEARCH ENVIRONM
0246  01301 017620R        JSB GTNPN      PACK NO. AVAILABLE ?
0247  01302 017672R        JSB ER6        NO
0248  01303 027262R        JMP SNXTD      YES
```

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0250*
0251*          CHANGE FILE NAME
0252*
0253  01304           FUN13 EQU *
0254  01304 017551R         JSB CKVSU      CHECK IF VALID DEFINE PREVIOUSLY
0255  01305 017565R         JSB CKNAP      CHECK NAME AND PACK NO.
0256  01306 063754R         LDA ARG3       GET ADDR OF CURRENT FILE NAME
0257  01307 040056          ADA D3         GET ADDR OF NEW FILE NAME
0258  01310 017554R         JSB NAM07      CHECK NEW NAME
0259  01311 163755R         LDA ARG4,I     GET PACK NO.
0260  01312 002020          SSA            TRY ALL PACKS ?
0261  01313 027374R         JMP SANPN      YES
0262  01314 002003          SZA,RSS        PN000 ?
0263  01315 027471R         JMP CNINC      YES
0264  01316 063754R         LDB ARG3       GET CURRENT FILE NAME
0265  01317 017612R         JSB CKOPN      IS IT OPEN ?
0266  01320 027367R         JMP CKPN1      NO
0267  01321 077536R         STB CFNEN      SAVE OPEN TABLE FILE ENTRY ADDR
0268  01322 163755R         LDA ARG4,I     GET PACK NO.
0269  01323 044065          ADB D10        INCREMENT TO PACK NO. FIELD
0270  01324 150001          CPA B,I        PACK NO.'S EQUAL ?
0271  01325 002001          RSS            YES
0272  01326 027367R         JMP CKPN1      NO
0273  01327 063754R         LDB ARG3       GET ADDR OF NEW FILE NAME
0274  01330 044056          ADB D3
0275  01331 017612R         JSB CKOPN      DUPLICATE ENTRY ?
0276  01332 002001          RSS            NO
0277  01333 017664R         JSB ER2        YES
0278  01334 017570R         JSB SETD1      SET UP FOR EFMP
0279  01335 063536R         LDB CFNEN      GET OPEN TABLE ENTRY ADDR
0280  01336 047740R         ADB D12        INCREMENT TO SUBCHANNEL FIELD
0281  01337 160001          LDA B,I        GET SUBCHANNEL
0282  01340 072020X         STA PAKSC      STORE SUBCHANNEL
0283  01341 044041          ADB MD10       BACK UP TO PACK NO. OFFSET FIELD
0284  01342 160001          LDA B,I        GET PACK NO. OFFSET
0285  01343 010074          AND L8BT       CLEAR THE LEFT BYTE
0286  01344 064057          LDB D4
0287  01345 017656R         JSB MPY        CALC. THE DISPLACEMENT
0288  01346 042010X         ADA OPNTB      CALCULATE ADDR OF PACK NO. ENTRY
0289  01347 072007X         STA PNEAD      STORE THE PACK NO. ENTRY ADDR
0290  01350 063754R         LDB ARG3       GET ADDR OF NAME
0291  01351 044056          ADB D3
0292  01352 017615R         JSB SRCD3      SEARCH FOR DUPLICATE
0293  01353 002001          RSS            NO DUPLICATE
0294  01354 017664R         JSB ER2        DUPLICATE
0295  01355 063536R         LDB CFNEN      GET ADDR OF OPEN TABLE ENTRY
0296  01356 017576R         JSB GETDE      GET DIRECTORY ENTRY
0297  01357 066006X         LDB CNAME      GET ADDR OF DIRECTORY ENTRY
0298  01360           CINAD EQU *
0299  01360 017511R         JSB CNGNM      CHANGE NAME IN DIRECTORY ENTRY
0300  01361 002404          CLA,INA        WRITE
0301  01362 066020X         LDB PAKSC      SUBCHANNEL
0302  01363 017653R         JSB PRWIO      WRITE NEW NAME
0303  01364 063536R         LDB CFNEN      GET OPEN TABLE ENTRY ADDR
0304  01365 017511R         JSB CNGNM      CHANGE NAME IN OPEN TABLE
0305  01366 026002X         JMP EFCON      RETURN
```

```
0306  01367          CKPN1 EQU *
0307  01367 002404         CLA,INA       CHECK FOR PACK NO.
0308  01370 167755R        LDB ARG4,I    GET PACK NO.
0309  01371 017631R        JSB CKPNT     PACK NO. IN TABLE ?
0310  01372 002001         RSS           NO
0311  01373 027412R        JMP SRCD1     YES
0312  01374          SANPN EQU *
0313  01374 163755R        LDA ARG4,I    GET PACK NO.
0314  01375 017607R        JSB GETPN     PACK NO. AVAILABLE ?
0315  01376 017672R        JSB ER6       NO
0316  01377          SVPNN EQU *
0317  01377 077232R        STB SVDEA     SAVE DIRECTORY ENTRY ADDR
0318  01400 017562R        JSB SVPNS     SAVE PACK NO. SEARCH ENVIRONMENT
0319  01401 067232R        LDB SVDEA     RESTORE DIRECTORY ENTRY ADDR
0320  01402 044054         ADB D1        GET ADDR OF 3RD AND 4TH CHARS OF
0321  01403 077537R        STB APNSV     SAVE ADDR OF 3RD CHAR OF PACK NO
0322  01404 063531R        LDA ADPNE     GET ADDR OF DUMMY PACK NO. ENTRY
0323  01405 072007X        STA PNEAD     STORE ADDR OF DUMMY PACK NO. ENT
0324  01406 044055         ADB D2        INCREMENT TO STARTING T/S FIELD
0325  01407 160001         LDA B,I       GET STARTING T/S
0326  01410 066007X        LDB PNEAD     GET ADDR OF PACK NO. ENTRY
0327  01411 170001         STA B,I       STORE STARTING T/S
0328  01412          SRCD1 EQU *
0329  01412 017570R        JSB SETD1     SET UP FOR EFMP
0330  01413 067754R        LDB ARG3      GET ADDR OF NEW NAME
0331  01414 044056         ADB D3
0332  01415 017615R        JSB SRCD3     SEARCH FOR DUPLICATE
0333  01416 002001         RSS           NO DUPLICATE
0334  01417 017664R        JSB ER2       DUPLICATE
0335  01420 067754R        LDB ARG3      GET CURRENT FILE NAME
0336  01421 017615R        JSB SRCD3     NAME FOUND ?
0337  01422 002001         RSS           NO
0338  01423 027433R        JMP CTCOP     YES
0339  01424 163755R        LDA ARG4,I    GET PACK NO.
0340  01425 002021         SSA,RSS       TRY ALL PACKS ?
0341  01426 017667R        JSB ER3       NO
0342  01427 017601R        JSB REPNS     RESTORE PACK NO. SEARCH ENVIRONM
0343  01430 017620R        JSB GTNPN     PACK NO. AVAILABLE ?
0344  01431 017672R        JSB ER6       NO
0345  01432 027377R        JMP SVPNN     YES
0346  01433          CTCOP EQU *
0347  01433 077530R        STB DEAD1     SAVE DIRECTORY ENTRY ADDR
0348  01434 044061         ADB D6        INCREMENT TO SECURITY FIELD
0349  01435 163756R        LDA ARG5,I    GET SECURITY IN PARM LIST
0350  01436 150001         CPA B,I       EQUAL ?
0351  01437 002001         RSS           YES
0352  01440 017675R        JSB ER7       NO
0353  01441 163755R        LDA ARG4,I    GET PACK NO.
0354  01442 002021         SSA,RSS       ALL PACKS ?
0355  01443 027463R        JMP CNOD      NO
0356  01444 067754R        LDB ARG3      GET CURRENT NAME
0357  01445 017612R        JSB CKOPN     FILE OPEN ?
0358  01446 027463R        JMP CNOD      NO
0359  01447 062016X        LDA DPNO      GET PACK NO.
0360  01450 044065         ADB D10       INCREMENT TO PACK NO. FIELD
0361  01451 150001         CPA B,I       PACK NO.'S EQUAL ?
```

```
0362  01452 002001          RSS             YES
0363  01453 027463R         JMP CNOD        NO
0364  01454 067754R         LDB ARG3        GET ADDR OF NEW NAME
0365  01455 044056          ADB D3
0366  01456 017612R         JSB CKOPN       CHECK FOR DUPLICATE IN OPEN TABL
0367  01457 002001          RSS             NO DUPLICATE
0368  01460 017664R         JSB ER2         DUPLICATE
0369  01461 067530R         LDB DEAD1       GET DIRECTORY ENTRY ADDR
0370  01462 027360R         JMP CINAD
0371  01463           CNOD  EQU *
0372  01463 067530R         LDB DEAD1       GET DIRECTORY ENTRY ADDR
0373  01464 017511R         JSB CNGNM       CHANGE NAME
0374  01465 002404          CLA,INA         WRITE
0375  01466 066020X         LDB PAKSC       SUBCHANNEL
0376  01467 017653R         JSB PRWIO       WRITE NEW NAME
0377  01470 026002X         JMP EFCON       RETURN
0378  01471           CNINC EQU *           CHANGE NAME IN CORE
0379  01471 067754R         LDB ARG3        ADDR. OF FILI NAME
0380  01472 017612R         JSB CKOPN       CHECK IF FILE OPEN
0381  01473 017667R         JSB ER3         NOT OPEN
0382  01474 077530R         STB DEAD1       SAVE OPEN TABLE ENTRY ADDR
0383  01475 044065          ADB D10
0384  01476 160001          LDA B,I         PACK NO.
0385  01477 002002          SZA             TEMP FILE?
0386  01500 017667R         JSB ER3         NO
0387  01501 067754R         LDB ARG3        GET ADDR OF NEW NAME
0388  01502 044056          ADB D3
0389  01503 017612R         JSB CKOPN       DUPLICATE OPEN
0390  01504 002001          RSS             NO
0391  01505 017664R         JSB ER2         YES
0392  01506 067530R         LDB DEAD1       GET DIRECTORY ENTRY ADDR
0393  01507 017511R         JSB CNGNM       CHANGE NAME
0394  01510 026002X         JMP EFCON       RETURN TO MAIN


0397  01511 000000  CNGNM   NOP             CHANGE NAME
0398  01512 060051          LDA MD2
0399  01513 072021X         STA MOVCT       NO. WDS. TO MOVE
0400  01514 063754R         LDA ARG3        ADDR. OF SOURCE
0401  01515 040056          ADA D3
0402  01516 017540R         JSB MOVE        MOVE NAME
0403  01517 160000          LDA A,I         3RD WD. OF NAME (SOURCE)
0404  01520 010075          AND H8BT        STRIP 5TH. CHAR.
0405  01521 073527R         STA TCSTR
0406  01522 160001          LDA B,I         3RD WD. OF DESTINATION
0407  01523 010074          AND L8BT        STRIP LO 8 BITS
0408  01524 033527R         IOR TCSTR
0409  01525 170001          STA B,I         REPACK 3RD. WD. OF ENTRY
0410  01526 127511R         JMP CNGNM,I     RETURN
0411  01527 000000  TCSTR   BSS 1           TEMP. STORAGE
0412  01530 000000  DEAD1   BSS 1           ADDR OF DIRECTORY ENTRY
0413  01531 001532R ADPNE   DEF DPNE        ADDR OF DUMMY PACK NO. ENTRY
0414  01532 000000  DPNE    BSS 4           DUMMY PACK NO. ENTRY
0415  01536 000000  CFNEN   BSS 1           ADDR OF OPEN TABLE ENTRY
0416  01537 000000  APNSV   BSS 1         ADDR OF PACK NO.
```

```
0418  01540 000000  MOVE  NOP
0419  01541 016025X       JSB MASUB
0420  01542 000001       DEC 1
0421  01543 000000  POST  NOP
0422  01544 016025X       JSB MASUB
0423  01545 000002       DEC 2
0424  01546 000000  POSTW NOP
0425  01547 016025X       JSB MASUB
0426  01550 000003       DEC 3
0427  01551 000000  CKVSU NOP
0428  01552 016025X       JSB MASUB
0429  01553 000004       DEC 4
0430  01554 000000  NAM0? NOP
0431  01555 016025X       JSB MASUB
0432  01556 000005       DEC 5
0433  01557 000000  CKPN  NOP
0434  01560 016025X       JSB MASUB
0435  01561 000007       DEC 7
0436  01562 000000  SVPNS NOP
0437  01563 016025X       JSB MASUB
0438  01564 000010       DEC 8
0439  01565 000000  CKNAP NOP
0440  01566 016025X       JSB MASUB
0441  01567 000011       DEC 9
0442  01570 000000  SETD1 NOP
0443  01571 016025X       JSB MASUB
0444  01572 000012       DEC 10
0445  01573 000000  SETD2 NOP
0446  01574 016025X       JSB MASUB
0447  01575 000013       DEC 11
0448  01576 000000  GETDE NOP
0449  01577 016025X       JSB MASUB
0450  01600 000014       DEC 12
0451  01601 000000  REPNS NOP
0452  01602 016025X       JSB MASUB
0453  01603 000015       DEC 13
0454  01604 000000  CNPND NOP
0455  01605 016025X       JSB MASUB
0456  01606 000017       DEC 15
0457  01607 000000  GETPN NOP
0458  01610 016025X       JSB MASUB
0459  01611 000021       DEC 17
0460  01612 000000  CKOPN NOP
0461  01613 016025X       JSB MASUB
0462  01614 000022       DEC 18
0463  01615 000000  SRCD3 NOP
0464  01616 016025X       JSB MASUB
0465  01617 000023       DEC 19
0466  01620 000000  GTNPN NOP
0467  01621 016025X       JSB MASUB
0468  01622 000024       DEC 20
0469  01623 000000  CKCLM NOP
0470  01624 016025X       JSB MASUB
0471  01625 000026       DEC 22
0472  01626 000000  CMPAR NOP
0473  01627 016025X       JSB MASUB
```

```
0474  01630 000027         DEC 23
0475  01631 000000  CKPNT  NOP
0476  01632 016025X        JSB MASUB
0477  01633 000030         DEC 24
0478  01634 000000  T,STS  NOP
0479  01635 016025X        JSB MASUB
0480  01636 000032         DEC 26
0481  01637 000000  STT,S  NOP
0482  01640 016025X        JSB MASUB
0483  01641 000033         DEC 27
0484  01642 000000  STZ    NOP
0485  01643 016025X        JSB MASUB
0486  01644 000034         DEC 28
0487  01645 000000  GRTXX  NOP
0488  01646 016025X        JSB MASUB
0489  01647 000035         DEC 29
0490  01650 000000  PRETS  NOP
0491  01651 016025X        JSB MASUB
0492  01652 000042         DEC 34
0493  01653 000000  PRWIO  NOP
0494  01654 016025X        JSB MASUB
0495  01655 000043         DEC 35
0496  01656 000000  MPY    NOP
0497  01657 016025X        JSB MASUB
0498  01660 000044         DEC 36
0499  01661 000000  DIV    NOP
0500  01662 016025X        JSB MASUB
0501  01663 000045         DEC 37
```

```
0503  01664           ER2    EQU *
0504  01664 000000           OCT 0
0505  01665 060055           LDA D2
0506  01666 017730R          JSB ERR
0507  01667           ER3    EQU *
0508  01667 000000           OCT 0
0509  01670 060056           LDA D3
0510  01671 017730R          JSB ERR
0511  01672           ER6    EQU *
0512  01672 000000           OCT 0
0513  01673 060061           LDA D6
0514  01674 017730R          JSB ERR
0515  01675           ER7    EQU *
0516  01675 000000           OCT 0
0517  01676 060062           LDA D7
0518  01677 017730R          JSB ERR
0519  01700           ER9    EQU *
0520  01700 000000           OCT 0
0521  01701 060064           LDA D9
0522  01702 017730R          JSB ERR
0523  01703           ER10   EQU *
0524  01703 000000           OCT 0
0525  01704 060065           LDA D10
0526  01705 017730R          JSB ERR
0527  01706           ER11   EQU *
0528  01706 000000           OCT 0
0529  01707 063737R          LDA D11
0530  01710 017730R          JSB ERR
0531  01711           ER13   EQU *
0532  01711 000000           OCT 0
0533  01712 063741R          LDA D13
0534  01713 017730R          JSB ERR
0535  01714           ER15   EQU *
0536  01714 000000           OCT 0
0537  01715 063743R          LDA D15
0538  01716 017730R          JSB ERR
0539  01717           ER21   EQU *
0540  01717 000000           OCT 0
0541  01720 063744R          LDA D21
0542  01721 017730R          JSB ERR
0543  01722           ER23   EQU *
0544  01722 000000           OCT 0
0545  01723 063745R          LDA D23
0546  01724 017730R          JSB ERR
0547  01725           ER26   EQU *
0548  01725 000000           OCT 0
0549  01726 063746R          LDA D26
0550  01727 017730R          JSB ERR
0551  01730 000000  ERR      NOP
0552  01731 067730R          LDB ERR
0553  01732 044050           ADB MD3
0554  01733 164001           LDB 8,I        PICK UP LOC OF ERROR
0555  01734 026001X          JMP ERROR
```

```
0557  00000          A       EQU 0
0558  00001          B       EQU 1
0559  00053          .       EQU 53B
0560  00073          L7BT    EQU 73B
0561  00074          L8BT    EQU 74B
0562  00075          H8BT    EQU 75B
0563  00156          SCCNT   EQU 156B
0564  00155          SYSSC   EQU 155B
0565  01735 000011   MXWPE   DEC 9            WORDS/DIRECTORY ENTRY
0566  01736 177765   MD11    DEC -11
0567  00041          MD10    EQU .-10
0568  00043          MD8     EQU .-8
0569  00044          MD7     EQU .-7
0570  00047          MD4     EQU .-4
0571  00050          MD3     EQU .-3
0572  00051          MD2     EQU .-2
0573  00052          MD1     EQU .-1
0574  00054          D1      EQU .+1
0575  00055          D2      EQU .+2
0576  00056          D3      EQU .+3
0577  00057          D4      EQU .+4
0578  00060          D5      EQU .+5
0579  00061          D6      EQU .+6
0580  00062          D7      EQU .+7
0581  00063          D8      EQU .+8
0582  00064          D9      EQU .+9
0583  00065          D10     EQU .+10
0584  01737 000013   D11     DEC 11
0585  01740 000014   D12     DEC 12
0586  01741 000015   D13     DEC 13
0587  01742 000016   D14     DEC 14
0588  01743 000017   D15     DEC 15
0589  01744 000025   D21     DEC 21
0590  01745 000027   D23     DEC 23
0591  01746 000032   D26     DEC 26
0592  01747 000200   D128    DEC 128
0593  00065          B12     EQU D10          BINARY
0594  01737          B13     EQU D11          ASCII
0595  01750 077777   MAXRC   DEC 32767        MAX. RECORD NO.
0596  01751 001752R  AARG1   DEF ARG1
0597  01752 000000   ARG1    OCT 0
0598  01753 000000   ARG2    OCT 0
0599  01754 000000   ARG3    OCT 0
0600  01755 000000   ARG4    OCT 0
0601  01756 000000   ARG5    OCT 0
0602  01757 000000   ARG6    OCT 0
0603  01760 000000   ARG7    OCT 0
0604  01761 000000   ARG8    OCT 0
0605                 END
** NO ERRORS*
```

```
$EX32   00011/02 00004/02

*       00559/03 00567/03 00568/03 00569/03 00570/03 00571/03 00572/03
        00573/03 00574/03 00575/03 00576/03 00577/03 00578/03 00579/03
        00580/03 00581/03 00582/03 00583/03

A       00557/03 00020/02 00095/02 00203/02 00286/02 00304/02 00338/02
        00461/02 00582/02 00403/03

A$BUF   00009/02 00055/03

AARG1   00596/03 00016/02

ADPNE   00413/03 00106/03 00228/03 00322/03

ADRFL   00137/03 00117/03 00129/03

AINIT   00178/03 00174/03

AINVC   00006/02 00118/03

AJMPT   00021/02 00019/02

APN00   00008/02 00071/03

APNSV   00416/03 00321/03

ARG1    00597/03 00596/03

ARG2    00598/03 00018/02

ARG3    00599/03 00180/02 00182/02 00383/02 00385/02 00450/02 00457/02
        00256/03 00264/03 00273/03 00290/03 00330/03 00335/03 00356/03
        00364/03 00379/03 00387/03 00400/03

ARG4    00600/03 00187/02 00390/02 00507/02 00520/02 00565/02 00085/03
        00095/03 00130/03 00145/03 00152/03 00184/03 00208/03 00236/03
        00259/03 00268/03 00308/03 00313/03 00339/03 00353/03

ARG5    00601/03 00046/02 00096/02 00204/02 00407/02 00419/02 00428/02
        00439/02 00495/02 00001/03 00044/03 00069/03 00201/03 00211/03
        00215/03 00242/03 00349/03

*ARG6   00602/03

ARG7    00603/03 00480/02 00489/02 00499/02 00525/02 00533/02 00544/02
        00547/02 00550/02 00557/02 00004/03 00010/03 00029/03 00036/03
        00063/03 00099/03 00123/03 00154/03 00191/03

*ARG8   00604/03

ARGP1   00007/02 00015/02

ASTAT   00462/02 00460/02 00470/02
```

B 00558/03 00052/02 00101/02 00106/02 00113/02 00121/02 00129/02
00136/02 00159/02 00166/02 00169/02 00171/02 00190/02 00198/02
00209/02 00218/02 00237/02 00241/02 00258/02 00283/02 00288/02
00294/02 00296/02 00326/02 00330/02 00333/02 00338/02 00341/02
00391/02 00397/02 00401/02 00408/02 00425/02 00429/02 00431/02
00434/02 00441/02 00494/02 00511/02 00527/02 00532/02 00554/02
00559/02 00569/02 00006/03 00010/03 00012/03 00020/03 00031/03
00050/03 00057/03 00059/03 00061/03 00065/03 00075/03 00078/03
00109/03 00111/03 00133/03 00135/03 00167/03 00171/03 00185/03
00202/03 00232/03 00234/03 00270/03 00281/03 00284/03 00325/03
00327/03 00360/03 00361/03 00384/03 00406/03 00409/03 00554/03

B12 00593/03 00175/03

B13 00594/03 00173/03

CALAV 00323/02 00040/02 00088/02 00369/02

CALMV 00065/02 00045/02 00076/02 00094/02 00158/02

CALPO 00370/02 00324/02 00328/02 00336/02

CFNEN 00415/03 00267/03 00279/03 00295/03 00303/03

CINAD 00298/03 00370/03

CKCLM 00469/03 00205/02 00483/02 00037/03 00087/03

CKDIS 00023/03 00567/02 00571/02 00003/03

CKEOF 00234/02 00041/02 00089/02 00243/02 00247/02 00248/02

CKIN1 00227/02 00217/02 00223/02

CKINL 00179/02 00037/02 00085/02 00226/02

CKN1 00199/02 00195/02

CKN2 00196/02 00189/02

CKN3 00224/02 00220/02

CKNAP 00439/03 00255/03

CKOPN 00460/03 00183/02 00386/02 00508/02 00521/02 00566/02 00265/03
00275/03 00357/03 00366/03 00380/03 00389/03

CKPN 00433/03 00212/03

CKPN1 00306/03 00266/03 00272/03

CKPNT 00475/03 00309/03

CKRNO 00255/02 00043/02 00092/02 00145/02 00260/02 00265/02 00270/02
00271/02 00272/02

CKSLM 00035/03 00519/02 00538/02 00564/02 00039/03 00043/03

CKVSU 00427/03 00036/02 00082/02 00382/02 00449/02 00254/03

CMPAR 00472/03 00119/03

CNAME 00006/02 00405/02 00297/03

CNGNM 00397/03 00299/03 00304/03 00373/03 00393/03 00410/03

CNGRN 00418/02 00409/02 00415/02 00436/02 00438/02 00442/02

CNINC 00378/03 00263/03

CNOD 00371/03 00355/03 00358/03 00363/03

CNPND 00454/03 00188/03

CRINC 00414/02 00399/02

CTCOP 00346/03 00338/03

CTRBP 00376/02 00098/02 00163/02 00214/02 00215/02 00298/02 00302/02
00308/02 00367/02

D1 00574/03 00320/03

D10 00583/03 00389/02 00396/02 00510/02 00531/02 00568/02 00269/03
00360/03 00383/03 00525/03 00593/03

D11 00584/03 00132/02 00208/02 00529/03 00594/03

D12 00585/03 00280/03

D128 00592/03 00280/02 00344/02 00354/02 00015/03

D13 00586/03 00257/02 00293/02 00329/02 00533/03

D14 00587/03 00049/02 00168/02 00186/02

D15 00588/03 00103/02 00236/02 00424/02 00537/03

D2 00575/03 00216/02 00303/02 00400/02 00518/02 00537/02 00558/02
00563/02 00042/03 00170/03 00324/03 00505/03

D21 00589/03 00541/03

D23 00590/03 00545/03

D26 00591/03 00549/03

D3 00576/03 00211/02 00285/02 00337/02 00049/03 00086/03 00108/03
00231/03 00257/03 00274/03 00291/03 00331/03 00365/03 00388/03
00401/03 00509/03

D4 00577/03 00126/02 00056/03 00058/03 00074/03 00286/03

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D5      00578/03 00202/02 00325/02 00005/03

D6      00579/03 00432/02 00553/02 00348/03 00513/03

D7      00580/03 00517/03

D8      00581/03 00406/02 00030/03

D9      00582/03 00521/03

DEAD1   00412/03 00347/03 00369/03 00372/03 00382/03 00392/03

DELTS   00372/02 00342/02 00353/02

DESRN   00311/02 00050/02 00071/02 00084/02 00104/02 00111/02 00120/02
        00127/02 00133/02 00138/02 00141/02 00142/02 00143/02 00147/02
        00149/02 00152/02 00153/02 00155/02 00172/02 00200/02 00245/02
        00261/02 00266/02 00275/02

DIV     00499/03 00279/02 00346/02 00356/02 00014/03

DPNE    00414/03 00413/03

DPNO    00007/02 00498/02 00543/02 00028/03 00359/03

EBIAS   00007/02 00142/03

EFCON   00005/02 00024/02 00028/02 00029/02 00053/02 00118/02 00413/02
        00416/02 00497/02 00500/02 00529/02 00534/02 00560/02 00021/03
        00066/03 00136/03 00203/03 00305/03 00377/03 00394/03

ENTNO   00205/03 00105/03 00122/03 00125/03 00160/03 00190/03 00194/03

EOFWR   00124/02 00090/02

ER10    00523/03 00421/02 00427/02

ER11    00527/03 00184/02 00387/02

ER13    00531/03 00192/02 00194/02

ER15    00535/03 00393/02 00046/03 00091/03 00093/03 00098/03

ER2     00503/03 00277/03 00294/03 00334/03 00368/03 00391/03

ER21    00539/03 00042/02 00131/02 00116/03 00165/03

ER23    00543/03 00282/02 00359/02 00452/02 00456/02 00459/02 00017/03
        00101/03 00103/03 00147/03 00151/03 00156/03 00158/03

ER26    00547/03 00349/02

ER3     00507/03 00509/02 00513/02 00244/03 00341/03 00381/03 00386/03

ER6     00511/03 00025/03 00217/03 00247/03 00315/03 00344/03
```

ER7 00515/03 00352/03

ER9 00519/03 00206/02 00484/02 00038/03 00068/03

ERR 00551/03 00506/03 00510/03 00514/03 00518/03 00522/03 00526/03
00530/03 00534/03 00538/03 00542/03 00546/03 00550/03 00552/03

ERROR 00005/02 00555/03

FINRN 00373/02 00115/02 00268/02 00352/02

FTRBE 00006/02 00213/02

FUN06 00035/02 00023/02

FUN08 00081/02 00025/02

FUN09 00381/02 00026/02

FUN10 00448/02 00027/02

FUN13 00253/03 00030/02

GARG5 00210/03 00226/03

GETDE 00448/03 00404/02 00296/03

GETPN 00457/03 00216/03 00314/03

GNS 00008/02 00291/02

GRTXX 00487/03 00299/02

GSC 00008/02 00297/02

GTNPN 00466/03 00246/03 00343/03

GTNX1 00195/03 00169/03 00177/03 00189/03

GTNXE 00007/02 00199/03

H8BT 00562/03 00134/03 00404/03

INSZ1 00157/02 00151/02

INSZR 00144/02 00135/02

JMPTB 00022/02 00021/02

L7BT 00560/03 00172/03

L8BT 00561/03 00285/03 00407/03

MASUB 00009/02 00419/03 00422/03 00425/03 00428/03 00431/03 00434/03
00437/03 00440/03 00443/03 00446/03 00449/03 00452/03 00455/03

00458/03 00461/03 00464/03 00467/03 00470/03 00473/03 00476/03
00479/03 00482/03 00485/03 00488/03 00491/03 00494/03 00497/03
00500/03

MAXRC 00595/03 00351/02

MD1 00573/03 00110/02 00210/02 00276/02 00295/02 00132/03 00140/03
00187/03 00197/03

MD10 00567/03 00332/02 00514/02 00283/03

MD11 00566/03 00007/03

MD2 00572/03 00398/03

MD3 00571/03 00492/02 00094/03 00127/03 00553/03

MD4 00570/03 00032/03

MD7 00569/03 00240/02 00430/02

MD8 00568/03 00013/02

MOVCT 00008/02 00014/02 00068/02 00488/02 00128/03 00399/03

MOVE 00418/03 00017/02 00047/02 00097/02 00491/02 00131/03 00402/03

MPY 00496/03 00073/02 00212/02 00278/02 00345/02 00355/02 00013/03
00287/03

MXWPE 00565/03 00481/02 00486/02

NAM07 00430/03 00181/02 00384/02 00209/03 00258/03

NINIT 00181/03 00176/03

NOPAS 00007/02 00114/03 00163/03

NOSTF 00470/02 00454/02

NSUWA 00006/02 00076/03

OPNTB 00006/02 00288/03

PAKSC 00008/02 00402/02 00411/02 00053/03 00069/03 00153/03 00282/03
00301/03 00375/03

PN 00007/02 00166/03

PNEAD 00006/02 00107/03 00110/03 00229/03 00233/03 00289/03 00323/03
00326/03

POST 00421/03 00394/02 00473/02 00022/03

POSTW 00424/03 00309/02

```
PRETS   00490/03 00051/03

PRWIO   00493/03 00412/02 00054/03 00302/03 00376/03

PST1T   00307/02 00055/02 00117/02 00176/02 00221/02 00310/02

RDTS    00274/02 00056/02 00176/02 00305/02

READ1   00038/02 00057/02

READ2   00054/02 00044/02

REPNS   00451/03 00245/03 00342/03

RES T1  00443/02 00388/02 00395/02 00403/02 00423/02

RFLPO   00312/02 00039/02 00048/02 00067/02 00102/02 00125/02 00167/02
        00185/02 00201/02 00207/02 00219/02 00222/02 00225/02 00235/02
        00256/02 00284/02 00292/02 00300/02

RLGTH   00371/02 00066/02 00072/02 00160/02 00277/02 00327/02 00347/02
        00357/02 00366/02

RNXTS   00174/02 00093/02 00146/02

S1PAK   00501/02 00475/02

S5PAK   00067/03 00048/03

SANPN   00312/03 00261/03

SCCNT   00563/03 00149/03

SETD1   00442/03 00112/03 00235/03 00278/03 00329/03

SETD2   00445/03 00070/03 00161/03

SFILP   00504/02 00479/02 00485/02 00524/02 00530/02

SNXTD   00230/03 00248/03

SRCD1   00328/03 00311/03

SRCD2   00227/03 00476/02 00541/02 00026/03 00238/03 00239/03 00240/03

SRCD3   00463/03 00072/03 00115/03 00164/03 00237/03 00292/03 00332/03
        00336/03

SRCDR   00009/02 00139/03 00141/03 00196/03 00198/03

SRET1   00200/03 00192/03

ST6PN   00223/03 00047/03 00097/03 00224/03

STA1A   00478/02 00503/02
```

```
STA3A   00546/02 00540/02

STA3B   00549/02 00545/02

STA4A   00008/03 00033/03

STA5A   00062/03 00079/03 00082/03

STA5B   00080/03 00073/03

STA6A   00138/03 00121/03 00126/03

STAPN   00207/03 00474/02 00539/02 00024/03 00214/03 00221/03 00222/03
        00225/03

STAT1   00472/02 00463/02

STAT2   00517/02 00464/02

STAT3   00536/02 00465/02

STAT4   00562/02 00466/02

STAT5   00041/03 00467/02

STAT6   00084/03 00468/02

STAT7   00144/03 00469/02

STRNO   00374/02 00069/02 00263/02 00363/02

STRPO   00375/02 00075/02 00368/02

STT,S   00481/03 00289/02

STZ     00484/03 00162/02 00096/03

SVDEA   00204/03 00183/03 00186/03 00218/03 00220/03 00317/03 00319/03

SVPNN   00316/03 00345/03

SVPNS   00436/03 00219/03 00318/03

SYSSC   00564/03 00068/03

T,STS   00478/03 00287/02 00334/02 00339/02

TCSTR   00411/03 00405/03 00408/03

TFOPN   00506/02 00502/02 00515/02 00548/02

TNXTP   00241/03 00477/02 00542/02 00027/03

TRBSZ   00007/02 00290/02 00343/02

UDHRW   00119/02 00108/02
```

```
WRIT1   00086/02 00156/02 00173/02 00177/02
WRIT2   00109/02 00122/02
WRIT3   00091/02 00139/02
```

```
0001                    ASMB,R,L,C,X,B      $EX33
** NO ERRORS*
```

```
0001                    ASMB,R,L,C,X,B      $EX33
0003  00000                     NAM $EX33,1
0004                            ENT $EX33
0005                            EXT $$YIO,$WAIT
0006                            EXT ERROR, EFCON
0007                            EXT ASBUF,SECIO,TRKIO,NOPAS,EBIAS,SRCDR
0008                            EXT AINVC,FLNGH,NOTRB,NSUWA,NXTFP,MOVCT
0009                            EXT ST$WA,TRBUF,TRBSZ,ARGP1,APN00,DPN0
0010                            EXT PAKSC,NOSEC,PNEAD,DPNTB,GSC,GNS
0011                            EXT NXPTL,GSC,GNS
0012                            EXT MASUB


0014  00000           $EX33 EQU *
0015  00000 000000            NOP             DUMMY
0016  00001 064043            LDB  MD8        NO. OF ARGS. TO MOVE
0017  00002 076020X           STB  MOVCT
0018  00003 062024X           LDA  ARGP1      ADDR. OF SOURCE
0019  00004 067700R           LDB  AARG1      ADDR. OF DESTINATION
0020  00005 017473R           JSB  MOVE       MOVE ARGS.
0021  00006 163702R           LDA  ARG2,I     FUNCTION NO.
0022  00007 053665R           CPA  D11
0023  00010 026014R           JMP  FUN11
0024  00011 053666R           CPA  D12
0025  00012 026372R           JMP  FUN12
0026  00013 026004X           JMP  EFCON
```

```
0028*
0029*          REPACK FUNCTION
0030*
0031  00014           FUN11 EQU *
0032  00014 017501R         JSB CKVSU      CHECK FOR VALID SETUP
0033  00015 163703R         LDA ARG3,I     PAKNO
0034  00016 017512R         JSB CKPN       CHECK PACK NO.
0035  00017 002003          SZA,RSS
0036  00020 017636R         JSB ER15
0037  00021 017534R         JSB GETPN      PACK NO. AVAILABLE ?
0038  00022 017630R         JSB ER6        NO
0039  00023 062360R         LDA ADPNE      ADDR OF DUMMY PACK NO. ENTRY
0040  00024 072031X         STA PNEAD      STORE ADDR
0041  00025           SVNXT EQU *
0042  00025 076357R         STB SVAEN      SAVE ADDR OF ENTRY
0043  00026 017515R         JSB SVPNS      SAVE SEARCH ENVIRONMENT
0044  00027 066357R         LDB SVAEN      RESTORE ADDR OF ENTRY
0045  00030 044056          ADB D3         INCREMENT TO STARTING T/S FIELD
0046  00031 160001          LDA B,I        GET STARTING T/S
0047  00032 066031X         LDB PNEAD      GET ADDR OF PACK NO. ENTRY
0048  00033 170001          STA B,I        STORE STARTING T/S IN PACK NO. E
0049  00034 026044R         JMP REPAK      GO REPACK
0050  00035           RPNXT EQU *
0051  00035 163703R         LDA ARG3,I     GET PACK NO.
0052  00036 002021          SSA,RSS        TRY ALL PACKS ?
0053  00037 026004X         JMP EFCON      NO, RETURN
0054  00040 017526R         JSB REPNS      RESTORE SEARCH ENVIRONMENT
0055  00041 017545R         JSB GTNPN      PACK NO. AVAILABLE ?
0056  00042 026004X         JMP EFCON      NO, RETURN
0057  00043 026025R         JMP SVNXT      YES
0058  00044           REPAK EQU *          REPACK THIS PACK
0059  00044 017476R         JSB POST       POST ALL TRB'S
0060  00045 017520R         JSB SETD1      SET UP FOR EFMP DIR.
0061  00046 066013X         LDB AINVC      ADDR. OF INVALID CHAR. NAME
0062  00047 017542R         JSB SRCD1      SEARCH DIRECTORY
0063  00050 026035R         JMP RPNXT      REPACK NEXT PACK
0064  00051 044056          ADB D3
0065  00052 062031X         LDA PNEAD      GET ADDR OF PACK NO. ENTRY
0066  00053 160000          LDA A,I        GET STARTING T/S
0067  00054 017561R         JSB T.STS      CALCULATE T/S OF 1ST DESTROYED D
0068  00055 140001          ADA B,I
0069  00056 040052          ADA MD1
0070  00057 017564R         JSB STT.S
0071  00060 072371R         STA RPNTS      REPACK NEXT T/S
0072  00061           FNXVF EQU *          FIND NEXT VALID FILE
0073  00061 016342R         JSB GTSDE      GET A SINGLE DIRECTORY ENTRY
0074  00062 026151R         JMP UDNAT      NO MORE IN DIR.
0075  00063 076370R         STB RPFPO      REPACK-FILE POSITION
0076  00064 062013X         LDA AINVC      ADDR OF INVALID CHAR
0077  00065 017553R         JSB CMPAR      THIS FILE INVALID?
0078  00066 002001          RSS            NO
0079  00067 026061R         JMP FNXVF      YES
0080  00070 066370R         LDB RPFPO      FILE POSITION
0081  00071 017201R         JSB CALFS      CALC. FILE SIZE
0082  00072 073457R         STA NOSTM      NO. OF SECT. TO MOVE
0083  00073 062027X         LDA PAKSC      GET SUBCHANNEL
```

```
0084   00074 073450R        STA CPCSC     COPY CURRENT SUB CH.
0085   00075 073453R        STA CPDSC     COPY DESIRED SUB CH.
0086   00076 062371R        LDA RPNTS     NEXT T/S FOR DATA
0087   00077 017561R        JSB T.STS     CONV TO SECT
0088   00100 073454R        STA CPNXS     COPY NEXT "T/S"
0089   00101 066031X        LDB PNEAD     ADDR OF PACK NO. ENTRY
0090   00102 160001         LDA B,I       GET STATING T/S
0091   00103 066370R        LDB RPFPO     FILE POSITION
0092   00104 044056         ADB D3
0093   00105 017561R        JSB T.STS     CONV. TO SECT.
0094   00106 072365R        STA STSEC     SAVE STARTING SECTOR
0095   00107 140001         ADA B,I       SECTOR OF DATA TO BE MOVED
0096   00110 040052         ADA MD1
0097   00111 073451R        STA CPCTS     COPY CURRENT "T/S"
0098   00112 062365R        LDA STSEC     GET STARTING SECTOR
0099   00113 003004         CMA,INA       CALCULATE NEW STARTING REL SECTO
0100   00114 043454R        ADA CPNXS
0101   00115 040054         ADA D1
0102   00116 170001         STA B,I       UPDATE DIRECTORY ENTRY
0103   00117 017127R        JSB CPMOV     COPY-MOVE DATA
0104   00120 002404         CLA,INA       WRITE
0105   00121 066027X        LDB PAKSC     SUBCHANNEL
0106   00122 017606R        JSB PRWIO     UPDATE DIRECTORY ENTRY
0107   00123 066370R        LDB RPFPO     ADDR. OF THIS FILE NAME
0108   00124 017537R        JSB CKOPN     CHECK IF OPEN
0109   00125 026143R        JMP RPMVE     NOT OPEN
0110   00126 047666R        ADB D12
0111   00127 160001         LDA B,I       SUB CH. IN O.T.
0112   00130 052027X        CPA PAKSC     SAME AS FILE BEING MOVED ?
0113   00131 002001         RSS           YES
0114   00132 026143R        JMP RPMVE
0115   00133 044051         ADB MD2       BACK UP TO PACK NO. FIELD
0116   00134 062026X        LDA DPNO      GET PACK NO.
0117   00135 150001         CPA B,I       SAME PACK NO. ?
0118   00136 002001         RSS           YES
0119   00137 026143R        JMP RPMVE     NO
0120   00140 044044         ADB MD7
0121   00141 062371R        LDA RPNTS     NEW T/S FOR THIS FILE
0122   00142 170001         STA B,I       UPDATE NEW T/S
0123   00143          RPMVE EQU *
0124   00143 062371R        LDA RPNTS     NEXT DATA T/S
0125   00144 017561R        JSB T.STS     CONV. TO SECT.
0126   00145 043460R        ADA NOSTM+1   NO. OF SECT. MOVED
0127   00146 017564R        JSB STT.S     CONV. BACK TO T/S
0128   00147 072371R        STA RPNTS     UPDATE NEXT DATA T/S
0129   00150 026061R        JMP FNXVF     FIND NEXT VALID FILE

0131   00151          UDNAT EQU *         UPDATE NEXT AVAIL. T/S
0132   00151 062031X        LDA PNEAD     ADDR OF PACK NO. ENTRY
0133   00152 160000         LDA A,I       GET STARTING T/S
0134   00153 017603R        JSB PRETS     PREPARE T/S FOR I/O
0135   00154 002400         CLA           READ
0136   00155 066027X        LDB PAKSC     SUBCHANNEL
0137   00156 017606R        JSB PRWIO     READ 1ST SECTOR
0138   00157 062371R        LDA RPNTS     CALCULATE LAST USED SECTOR
0139   00160 017561R        JSB T.STS
```

```
0140   00161 072371R        STA RPNTS
0141   00162 062031X        LDA PNEAD      CALCULATE STARTING SECTOR
0142   00163 160000         LDA A,I
0143   00164 017561R        JSB T.STS
0144   00165 003004         CMA,INA
0145   00166 042371R        ADA RPNTS      CALCULATE NEW RELATIVE ENDING SE
0146   00167 066005X        LDB ASBUF
0147   00170 044063         ADB D8
0148   00171 170001         STA B,I        UPDATE LAST SECTOR ALLOCATED FIE
0149   00172 002404         CLA,INA        WRITE
0150   00173 066027X        LDB PAKSC      SUBCHANNEL
0151   00174 017606R        JSB PRWIO      UPDATE DISC DIRECTORY LSA
0152* REPACK DIRECTORY, DATA HAS BEEN REPACKED
0153   00175 017520R        JSB  SETD1     SET UP FOR EFMP DIR
0154   00176 066013X        LDB AINVC      ADDR. OF INVALID CHAR.
0155   00177 017542R        JSB SRCD1      SEARCH DIRECTORY
0156   00200 017652R        JSB ER23       JUMP SHOULD NEVER OCCUR
0157   00201 062006X        LDA SECIO      INITIALIZE TRACK AND SECTOR FOR
0158   00202 072366R        STA NXSEC
0159   00203 062007X        LDA TRKIO
0160   00204 072367R        STA NXTRK
0161   00205 001727         ALF,ALF
0162   00206 022006X        XOR SECIO
0163   00207 072354R        STA NXSID      NEXT SECT. TO BE USED IN DIR.
0164   00210 007004         CMB,INB
0165   00211 046005X        ADB ASBUF      CALC. BIAS IN SBUF
0166   00212 007004         CMB,INB
0167   00213 046022X        ADB TRBUF      BIAS 2ND DIR. TO BE USED
0168   00214 076355R        STB NXLID      NEXT LOC. TO BE USED IN DIR.
0169   00215 006404         CLB,INB
0170   00216 076034X        STB GNS        NO. SECT. TO READ
0171   00217 066027X        LDB PAKSC      SUBCHANNEL
0172   00220 076033X        STB GSC
0173   00221 066022X        LDB TRBUF      ADDR OF TRB
0174   00222 017567R        JSB GRTXX      READ SAME SECT. AS SBUF TO TRB
0175   00223 066022X        LDB TRBUF
0176   00224 047675R        ADB D128
0177   00225 076356R        STB E2BP1      END OF 2ND. BUF. PLUS 1
0178   00226          GNXVF EQU *
0179   00226 016342R        JSB GTSDE      GET NEXT DIR. ENTRY
0180   00227 026304R        JMP RPEOD      REPACK EOD
0181   00230 076370R        STB RPFPO      SAVE FILE POSITION IN SBUF
0182   00231 062013X        LDA AINVC      ADDR. OF INVALID CHAR.
0183   00232 017553R        JSB CMPAR      THIS FILE DISTROYED?
0184   00233 002001         RSS            NO
0185   00234 026226R        JMP GNXVF      YES
0186   00235 062355R        LDA NXLID      NEXT LOC. IN DIR. (IN TRBUF)
0187   00236 043677R        ADA MXWPE      MAX. WDS./ENTRY
0188   00237 003004         CMA,INA
0189   00240 042356R        ADA E2BP1      END OF TRBUF+1
0190   00241 002021         SSA,RSS        .LE.(ROOM FOR THIS ENTRY)?
0191   00242 026246R        JMP RPDOK      YES
0192   00243 003400         CCA
0193   00244 172355R        STA NXLID,I    PACK EOS FLAG
0194   00245 016310R        JSB WTRBD      WRITE DIR. IN TRBUF
0195   00246          RPDOK EQU *          REPACKED DIR. OK SO FAR
```

```
0196  00246 063677R        LDA MXWPE     MAX. WDS./ENTRY
0197  00247 003004         CMA,INA
0198  00250 072020X        STA MOVCT     NO. WDS. TO MOVE
0199  00251 062370R        LDA RPFPO     FILE POSITION IN SBUF (SOURCE)
0200  00252 066365R        LDB NXLID     FILE POSITION IN TRBUF (DEST.)
0201  00253 017473R        JSB MOVE      MOVE DIR. ENTRY
0202  00254 076365R        STB NXLID     UPDATE NEXT LOC. IN TRBUF
0203  00255 062007X        LDA TRKIO     GET TRACK OF CURRENT ENTRY
0204  00256 001727         ALF,ALF
0205  00257 022006X        XOR SECIO     GET SECTOR OF CURRENT ENTRY
0206  00260 052354R        CPA NXSID     CURRENT ENTRY SAME AS NEW ENTRY
0207  00261 026226R        JMP GNXVF     YES
0208  00262 066355R        LDB NXLID     GET ADDR OF FILE NAME
0209  00263 044042         ADB MD9
0210  00264 017537R        JSB CKOPN     IS FILE OPEN ?
0211  00265 026226R        JMP GNXVF     NO
0212  00266 047666R        ADB D12       INCREMENT TO SUBCHANNEL FIELD
0213  00267 160001         LDA B,I       GET SUBCHANNEL
0214  00270 052027X        CPA PAKSC     SAME SUBCHANNEL AS FILE BEING RE
0215  00271 002001         RSS           YES
0216  00272 026226R        JMP GNXVF     NO
0217  00273 044051         ADB MD2       BACK UP TO PACK NO. FIELD
0218  00274 062026X        LDA DPNO      GET PACK NO.
0219  00275 150001         CPA B,I       SAME PACK NO. ?
0220  00276 002001         RSS           YES
0221  00277 026226R        JMP GNXVF     NO
0222  00300 044052         ADB MD1       BACK UP TO DIRECTORY ENTRY T/S F
0223  00301 062354R        LDA NXSID     GET NEW DIRECTORY ENTRY T/S
0224  00302 170001         STA B,I       STORE NEW DIRECTORY ENTRY T/S IN
0225  00303 026226R        JMP GNXVF     GET NEXT VALID FILE

0227  00304          RPEOD EQU *         REPACK EOD FLAG
0228  00304 002400         CLA
0229  00305 172355R        STA NXLID,I   PACK EOD FLAG
0230  00306 016310R        JSB WTRBD     WRITE DIR. FROM TRBUF
0231  00307 026035R        JMP RPNXT     REPACK NEXT PACK

0233  00310 000000  WTRBD  NOP           WRITE DIR. CONTAINED IN TRBUF
0234  00311 006404         CLB,INB
0235  00312 076034X        STB GNS       NO. SECT. TO WRITE
0236  00313 066027X        LDB PAKSC     SUBCHANNEL
0237  00314 076033X        STB GSC
0238  00315 066022X        LDB TRBUF     ADDR. OF TRB
0239  00316 062354R        LDA NXSID     SECT. IN TRB
0240  00317 017572R        JSB GWTXX     GENERAL WRITE
0241  00320 062366R        LDA NXSEC     GET SECTOR
0242  00321 002004         INA           INCREMENT TO NEXT SECTOR
0243  00322 072366R        STA NXSEC     STORE NEW SECTOR
0244  00323 003004         CMA,INA
0245  00324 040116         ADA SECTR
0246  00325 002002         SZA           END OF TRACK ?
0247  00326 026333R        JMP GNTSD     NO
0248  00327 072366R        STA NXSEC     YES, SECTOR 0
0249  00330 062367R        LDA NXTRK     GET CURRENT TRACK
0250  00331 002004         INA           INCREMENT TO NEXT TRACK
0251  00332 072367R        STA NXTRK     STORE NEW TRACK
```

```
0252   00333           GNTSD EQU *
0253   00333 062367R         LDA NXTRK      UPDATE NXSID FIELD
0254   00334 001727          ALF,ALF
0255   00335 022366R         XOR NXSEC
0256   00336 072354R         STA NXSID
0257   00337 062022X         LDA TRBUF
0258   00340 072355R         STA NXLID      REINTIALIZE NEXT LOC. IN TRBUF
0259   00341 126310R         JMP WTRBD,I    RETURN

0261   00342 000000  GTSDE NOP
0262   00343 062353R         LDA AGSDR      GET RETURN ADDR
0263   00344 072012X         STA SRCDR      STORE RETURN ADDR
0264   00345 003400          CCA            NO COMPARE SWITCH
0265   00346 072010X         STA NOPAS      STORE SWITCH
0266   00347 026011X         JMP EBIAS      GET NEXT DIRECTORY ENTRY
0267   00350           GTSDR EQU *
0268   00350 126342R         JMP GTSDE,I    END OF DIRECTORY
0269   00351 036342R         ISZ GTSDE      P+2
0270   00352 126342R         JMP GTSDE,I    RETURN P+2
0271   00353 000350R AGSDR DEF GTSDR

0273   00354 000000  NXSID OCT 0           NEXT SECT.(IN TRBUF)
0274   00355 000000  NXLID OCT 0           NEXT AVAIL. LOC. IN TRBUF
0275   00356 000000  E2SP1 OCT 0           START OF 2ND SECT. IN TRBUF
0276   00357 000000  SVAEN BSS 1           SAVE FOR ENTRY ADDR
0277   00360 000361R ADPNE DEF DPNE        ADDR OF DUMMY PACK NO. ENTRY
0278   00361 000000  DPNE  BSS 4           DUMMY PACK NO. ENTRY
0279   00365 000000  STSEC BSS 1           STARTING SECTOR
0280   00366 000000  NXSEC BSS 1           NEW SECTOR FOR REPACKED DIRECTOR
0281   00367 000000  NXTRK BSS 1           NEW TRACK FOR REPACKED DIRECTORY
0282   00370 000000  RPFPO OCT 0           FILE POSITION
0283   00371 000000  RPNTS OCT 0           REPACKED NEW T/S
```

```
0285*
0286*          COPY FUNCTION
0287*
0288  00372           FUN12 EQU *
0289  00372 017501R         JSB CKV8U      CHECK IF VALID SETUP
0290  00373 017476R         JSB POST       POST ALL TRB'S
0291  00374 063703R         LDA ARG3       POINTER TO FILE NAME
0292  00375 017504R         JSB NAM07      NAME #07
0293  00376 067703R         LDB ARG3       POINTER TO FILE NAME
0294  00377 017537R         JSB CKOPN      CHECK IF FILE OPEN
0295  00400 017633R         JSB ER11       FILE NOT OPEN
0296  00401 077464R         STB CPFPO      COPY-FILE POSITION
0297  00402 044056          ADB D3
0298  00403 160001          LDA B,I        T/S OF DATA
0299  00404 017561R         JSB T.ST$      CONV TO SECT.
0300  00405 073451R         STA CPCTS      CURRENT DATA "T/S"
0301  00406 073452R         STA CPCTS+1
0302  00407 044062          ADB D7
0303  00410 160001          LDA B,I        CURRENT P.N.
0304  00411 073463R         STA CPCPN
0305  00412 044055          ADB D2
0306  00413 160001          LDA B,I        SUB CH.
0307  00414 073460R         STA CPCSC      CURRENT SUB CH.
0308  00415 002400          CLA
0309  00416 053463R         CPA CPCPN      PN000 ?
0310  00417 026435R         JMP NSCOD      NO SECURITY CODE
0311  00420 044041          ADB MD10
0312  00421 160001          LDA B,I        GET OFFSET
0313  00422 010074          AND L8BT       CLEAR LEFT BYTE
0314  00423 064057          LDB D4
0315  00424 017611R         JSB MPY
0316  00425 042032X         ADA OPNTB      CALCUALTE ADDR
0317  00426 072031X         STA PNEAD      STORE ADDR
0318  00427 017520R         JSB SETD1      SET UP FOR EFMP DIR.
0319  00430 017542R         JSB SRCD1      SEARCH DIRECTORY
0320  00431 017622R         JSB ER3        FILE NOT IN DIR.
0321  00432 044061          ADB D6
0322  00433 160001          LDA B,I        SECURITY CODE
0323  00434 002001          RSS
0324  00435           NSCOD EQU *
0325  00435 002400          CLA
0326  00436 073467R         STA SCODE      SAVE IT FOR LATER COPY
0327  00437 163704R         LDA ARG4,I     PACK NO.
0328  00440 002021          SSA,RSS
0329  00441 003004          CMA,INA
0330  00442 043676R         ADA D999
0331  00443 002020          SSA            TOO BIG?
0332  00444 017636R         JSB ER15       YES
0333  00445 163704R         LDA ARG4,I     PACK NO.
0334  00446 002020          SSA
0335  00447 003004          CMA,INA
0336  00450 072026X         STA DPNO       STORE PACK NO
0337  00451 163704R         LDA ARG4,I     PACK NO.
0338  00452 002003          SZA,RSS
0339  00453 026676R         JMP CPTOS      COPY FROM PACK TO SYST.
0340  00454 002020          SSA
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0341  00455 026604R        JMP CPSTD     COPY SYST. TO PACK
0342* COPY PACK TO PACK
0343* COPY TO SYST. PACK FIRST
0344  00456 017534R        JSB GETPN     GET SPECIAL PACK NO.
0345  00457 002001         RSS           DESIRED DEST. PACK NOT AVAIL.
0346  00460 026464R        JMP DPAVL     DESIRED DESTINATION PACK AVAIL.
0347  00461 017216R        JSB MSTOW     MOVE SOURCE TO WORK AREA
0348* COPY SYST. PACK TO DEST. PACK
0349  00462 017300R GETD   JSB GETDP     GET DESTINATION PACK
0350  00463 017647R        JSB ER22
0351* CREATE FILE ON DEST. PACK
0352  00464          DPAVL EQU *         DEST. PACK AVAILABLE
0353  00464 062027X        LDA PAKSC     GET SUBCHANNEL
0354  00465 073453R        STA CPDSC     SAVE SUBCHANNEL
0355  00466 044056         ADB D3        INCREMENT TO STARTING T/S FIELD
0356  00467 062360R        LDA ADPNE     ADDR OF DUMMY PACK NO. ENTRY
0357  00470 072031X        STA PNEAD     STORE ADDR
0358  00471 164001         LDB B,I       GET STARTING T/S
0359  00472 174000         STB A,I       STORE STARTING T/S IN PACK NO. E
0360  00473 017520R        JSB SETD1     SET UP FOR EFMP FILES
0361  00474 067464R        LDB CPFPO     FILE POSITION
0362  00475 017542R        JSB SRCD1     SEARCH DIRECTORY
0363  00476 002001         RSS           NO DUPLICATES
0364  00477 017617R        JSB ER2       DUPLICATE FILE NAME
0365  00500 076017X        STB NXTFP     SAVE NEXT FILE LOC.
0366  00501 067464R        LDB CPFPO     OPEN-FILE POSITION
0367  00502 017201R        JSB CALF8     CALC. FILE SIZE(IN SECTORS)
0368  00503 072030X        STA NOSEC     SAVE SECTORS REQUIRED
0369  00504 073465R        STA CPNSF     SAVE SECTORS REQUIRED
0370  00505 017575R        JSB CKSPC     SPACE AVAILABLE ?
0371  00506 017625R        JSB ER4       NO
0372  00507 067464R        LDB CPFPO     SET UP SECURITY CODE IN OPEN TAB
0373  00510 044061         ADB D6
0374  00511 063467R        LDA SCODE
0375  00512 170001         STA B,I
0376  00513 063677R        LDA MXWPE     SIZE OF ENTRY TO CREATE
0377  00514 067464R        LDB CPFPO     ADDR OF ENTRY TO COPY
0378  00515 017550R        JSB CKDSP     DIRECTORY ENTRY CREATED ?
0379  00516 002001         RSS           NO
0380  00517 026531R        JMP CLRSC     YES
0381  00520 067464R        LDB CPFPO     CLEAR SECURITY CODE IN OPEN TABL
0382  00521 044061         ADB D6
0383  00522 077464R        STB CPFPO
0384  00523 006400         CLB
0385  00524 177464R        STB CPFPO,I
0386  00525 077467R        STB SCODE     CLEAR SECURITY CODE
0387  00526 002002         SZA           NO FILE SPACE ?
0388  00527 017655R        JSB ER24      NO
0389  00530 017625R        JSB ER4       YES
0390  00531          CLRSC EQU *
0391  00531 066031X        LDB PNEAD     GET ADDR OF DUMMY PACK NO. ENTRY
0392  00532 077471R        STB PNSAV     SAVE ADDR
0393  00533 002404         CLA,INA       SEARCH FOR EXISTING ENTRY
0394  00534 066026X        LDB DPNO      GET PACK NO.
0395  00535 017556R        JSB CKPNT     IS PACK NO. ACTIVE ?
0396  00536 026545R        JMP NOCPN     NO
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0397   00537 062031X          LDA PNEAD      GET ADDR OF ACTIVE ENTRY
0398   00540 040056           ADA D3         INCREMENT TO LSA FIELD
0399   00541 067471R          LDB PNSAV      GET ADDR OF DUMMY ENTRY
0400   00542 044056           ADB D3         INCREMENT TO LSA FIELD
0401   00543 164001           LDB B,I        GET UPDATED LSA
0402   00544 174000           STB A,I        UPDATE ACTIVE ENTRY WITH NEW LSA
0403   00545           NOCPN  EQU *
0404   00545 067471R          LDB PNSAV      GET ADDR OF DUMMY ENTRY
0405   00546 076031X          STB PNEAD      RESTORE ADDR
0406   00547 067464R          LDB CPFPO      CLEAR SECURITY CODE IN OPEN TABL
0407   00550 044061           ADB D6
0408   00551 002400           CLA
0409   00552 170001           STA B,I
0410   00553 073467R          STA SCODE      CLEAR SECURITY CODE
0411   00554 066031X          LDB PNEAD      GET ADDR OF PACK NO, ENTRY
0412   00555 160001           LDA B,I        GET STARTING T/S
0413   00556 017561R          JSB T.STS      CONVERT TO SECTORS
0414   00557 044056           ADB D3         INCREMENT TO LSA FIELD
0415   00560 140001           ADA B,I        ADD LSA TO REL. STARTING SECTOR
0416   00561 066030X          LDB NOSEC      GET SIZE OF LAST FILE CREATED
0417   00562 007004           CMB,INB        COMPUTE STARTING RELATIVE SECTOR
0418   00563 040001           ADA B
0419   00564 073454R          STA CPNXS      STORE STARTING T/S
0420   00565 073455R          STA CPNXS+1    STORE STARTING T/S
0421   00566 163704R          LDA ARG4,I     PAKNO
0422   00567 002021           SSA,RSS
0423   00570 026612R          JMP CPTOD      COPY TO DESTINATION PACK
0424* COPY FROM SYSTEM PACK TO DEST. PACK
0425* (FOR SYST. TO DEST. PACK COPY)
0426   00571 064155           LDB SYSSC      GET SYSTEM SUBCHANNEL
0427   00572 076027X          STB PAKSC      STORE SUBCHANNEL
0428   00573 017523R          JSB SETD2      SET UP FOR DOS-M SEARCH
0429   00574 066025X          LDB APN00      GET ADDR OF NAME
0430   00575 017542R          JSB SRCD1      SEARCH DIRECTORY
0431   00576 017652R          JSB ER23       NOT FOUND
0432   00577 017261R          JSB CLWAP      CALC. WORK AREA PARAMETERS
0433   00600 063455R          LDA CPNXS+1    NEXT "T/S" FOR DEST. PACK
0434   00601 073454R          STA CPNXS
0435   00602 017127R          JSB CPMOV      COPY-MOVE SYST. TO DEST.
0436   00603 026004X          JMP EFCON      RETURN TO MAIN

0438   00604           CPSTD  EQU *          COPY SYST. TO DEST. PACK
0439   00604 067464R          LDB CPFPO      FILE POSITION
0440   00605 044065           ADB D10        INCREMENT TO PACK NO. FIELD
0441   00606 002400           CLA
0442   00607 150001           CPA B,I        PN000 ?
0443   00610 026462R          JMP GETD       GET DEST. PACK
0444   00611 017622R          JSB ER3
0445* COPY FROM SYST. PACK TO DEST.
0446* (FOR PACK TO PACK COPY)
0447   00612           CPTOD  EQU *          COPY TO DESTINATION
0448   00612 063463R          LDA CPCPN      CURRENT P.N.
0449   00613 017534R          JSB GETPN      GET PACK NO.
0450   00614 002001           RSS            PACK NOT AVAILABLE
0451   00615 027100R          JMP GOCPY      SOURCE AND DEST AVAIL.,GO COPY
0452   00616 060155           LDA SYSSC      GET SYSTEM SUBCHANNEL
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0453  00617 072027X          STA PAKSC     STORE SYSTEM SUBCHANNEL
0454  00620 017523R          JSB SETD2     SET UP FOR DOS-M SEARCH
0455  00621 066025X          LDB APN00     GET ADDR OF NAME
0456  00622 017542R          JSB SRCD1     SEARCH DIRECTORY
0457  00623 026624R          JMP *+1       JUMP SHOULD NOT OCCUR
0458  00624 017261R          JSB CLWAP     CALC. WORK AREA PARAMETERS
0459  00625 002001           RSS
0460  00626           MRTOD  EQU *         MORE TO MOVE
0461  00626 077453R          STB CPDSC     DEST. PACK SUB CH.
0462  00627 060155           LDA SYSSC     SYSTEM SUB CH.
0463  00630 073450R          STA CPCSC     CURRENT SUB CH.
0464  00631 063461R          LDA BWATS     BEGINNING OF FREE W/A T/S
0465  00632 073451R          STA CPCTS     CURRENT "T/S" FOR W/A
0466  00633 063455R          LDA CPNXS+1   NEXT "T/S" FOR DEST. PACK
0467  00634 073454R          STA CPNXS     NEXT "T/S" TO MOVE
0468  00635 063460R          LDA NOSTM+1   NO. OF SECT. MOVED LAST TIME
0469  00636 073457R          STA NOSTM     NO. OF SECT. TO MOVE THIS TIME
0470  00637 017127R          JSB CPMOV     MOVE W/A TO DESTINATION
0471  00640 063462R          LDA CPALF     ALL SECT. XFERED FLAG
0472  00641 002020           SSA           FINISHED?
0473  00642 026004X          JMP EFCON     YES, RETURN TO MAIN
0474  00643 002004           INA
0475  00644 073465R          STA CPNSF     NO. SECT. LEFT TO MOVE
0476  00645 073457R          STA NOSTM     NO. OF SECT. TO MOVE
0477  00646 017321R          JSB GETSP     GET SOURCE PACK
0478  00647 027104R          JMP CPYT      TERMINATE
0479  00650 073463R          STA CPCPN     CURRENT P.N.
0480  00651 077450R          STB CPCSC     CURRENT SUB CH.
0481  00652 063465R          LDA CPNSF     NO. SECT. LEFT IN FILE
0482  00653 073457R          STA NOSTM     NO. SECT. TO MOVE THIS TIME
0483  00654 017233R          JSB CLSTM     CAL. IF NO. SECT. DIFFERENT
0484  00655 063455R          LDA CPNXS+1   NEXT "T/S" OF DEST. PACK
0485  00656 043460R          ADA NOSTM+1   NO. SECT. MOVED LAST TIME
0486  00657 073455R          STA CPNXS+1
0487  00660 063452R          LDA CPCTS+1   CURRENT SOURCE PACT "T/S"
0488  00661 043460R          ADA NOSTM+1   NO. OF SECT. MOVED LAST TIME
0489  00662 073452R          STA CPCTS+1
0490  00663 073451R          STA CPCTS     CURRENT "T/S" TO MOVE
0491  00664 063461R          LDA BWATS     BEGINNING FREE W/A T/S
0492  00665 073454R          STA CPNXS     NEXT "T/S" TO MOVE
0493  00666 062672R          LDA *+4
0494  00667 073127R          STA CPMOV     PACK RETURN ADDR.
0495  00670 063456R          LDA MTRBS     MAX. TRB SECT.
0496  00671 027134R          JMP CPYMR     MOVE FROM SOURCE TO W/A
0497  00672 000673R          DEF *+1       RETURN ADDR.
0498  00673 017300R          JSB GETDP     GET DESTINATION PACK
0499  00674 017647R          JSB ER22
0500  00675 026626R          JMP MRTOD     COPY W/A TO DEST. PACK

0502  00676           CPTOS  EQU *         COPY TO SYST. PACK
0503  00676 026762R          JMP SPN00     GO SEARCH FOR PN000
0504  00677           CKPN0  EQU *
0505  00677 002400           CLA           CLEAR PACK NO. USED SWITCH
0506  00700 073472R          STA PNESW     STORE SWITCH
0507  00701 002404           CLA,INA       SEARCH FOR EXISTING ENTRY
0508  00702 006400           CLB           PN000
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0509  00703 017556R        JSB CKPNT     ENTRY FOUND ?
0510  00704 026722R        JMP CKDPN     NO
0511  00705 063464R        LDA CPFPO     GET OPEN TABLE ENTRY ADDR
0512  00706 040055          ADA D2        INCREMENT TO PACK NO, OFFSET FIE
0513  00707 164000          LDB A,I       GET PACK NO, OFFSET
0514  00710 077470R        STB PNOFF     SAVE IT
0515  00711 040051          ADA MD2       START OF OPEN TABLE ENTRY
0516  00712 017600R        JSB STPNO     STORE NEW PACK NO, OFFSET
0517  00713 063470R        LDA PNOFF     GET OLD OFFSET
0518  00714 017531R        JSB MVPNT     UPDATE PACK NO, TABLE
0519  00715 002404          CLA,INA       SEARCH FOR EXISTING ENTRY
0520  00716 006400          CLB           PN000
0521  00717 017556R        JSB CKPNT     UPDATE 'PNEAD' FOR PN000
0522  00720 017641R        JSB ER16      BRANCH NEVER OCCURS
0001  00721 027037R        JMP MOVDA     MOVE DATA
0002  00722          CKDPN EQU *
0003  00722 063464R        LDA CPFPO     GET OPEN TABLE ADDR
0004  00723 040065          ADA D10       INCREMENT OT PACK NO, FIELD
0005  00724 164000          LDB A,I       GET PACK NO,
0006  00725 077470R        STB PNOFF     SAVE PACK NO,
0007  00726 006400          CLB           NEW PACK NO, IS 0
0008  00727 174000          STB A,I       STORE NEW PACK NO,
0009  00730 002404          CLA,INA       SEARCH FOR EXISTING ENTRY
0010  00731 067470R        LDB PNOFF     GET OLD PACK NO,
0011  00732 017556R        JSB CKPNT     CAN OLD PACK NO, ENTRY BE USED F
0012  00733 002001          RSS           YES
0013  00734 026742R        JMP GPNE      NO
0014  00735 002404          CLA,INA       SEARCH FOR EXISTING ENTRY
0015  00736 006400          CLB           PN000
0016  00737 017556R        JSB CKPNT     UPDATE 'PNEAD' FOR PN000
0017  00740 017641R        JSB ER16      ERROR NEVER OCCURS
0018  00741 026747R        JMP MVPNE     INIT REAL PACK NO, ENTRY
0019  00742          GPNE  EQU *
0020  00742 002400          CLA           SEARCH FOR AVAILABLE ENTRY
0021  00743 017556R        JSB CKPNT     ENTRY AVAILABLE ?
0022  00744 026755R        JMP NENTA     NO
0023  00745 002404          CLA,INA       SET PACK NO, USED SWITCH
0024  00746 073472R        STA PNESW     STORE SWITCH
0025  00747          MVPNE EQU *
0026  00747 060047          LDA MD4       SIZE OF PACK NO, ENTRY(-)
0027  00750 072020X        STA MOVCT
0028  00751 062360R        LDA ADPNE     ADDR OF SOURCE(DUMMY PACK NO, EN
0029  00752 066031X        LDB PNEAD     ADDR OF REAL PACK NO, ENTRY
0030  00753 017473R        JSB MOVE      MOVE PACK NO, ENTRY
0031  00754 027037R        JMP MOVDA     GO MOVE DATA
0032  00755          NENTA EQU *
0033  00755 063464R        LDA CPFPO     GET OPEN TABLE ENTRY ADDR
0034  00756 040065          ADA D10       INCREMENT TO PACK NO, FIELD
0035  00757 067470R        LDB PNOFF     GET OLD PACK NO,
0036  00760 174000          STB A,I       RESTORE ORIGINAL PACK NO,
0037  00761 017641R        JSB ER16      NO
0038  00762          SPN00 EQU *
0039  00762 062360R        LDA ADPNE     GET ADDR OF DUMMY PACK NO, ENTRY
0040  00763 072031X        STA PNEAD     USE DUMMY ENTRY
0041  00764 060155          LDA SYSSC     GET SYSTEM SUBCHANNEL
0042  00765 072027X        STA PAKSC     STORE SUBCHANNEL
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0043  00766 017523R        JSB SETD2     SET UP FOR DOS-M SEARCH
0044  00767 066025X        LDB APN00     GET ADDR OF NAME
0045  00770 017542R        JSB SRCD1     PN000 EXIST ?
0046  00771 027025R        JMP CPN00     NO
0047  00772 044056          ADB D3        INCREMENT TO STARTING T/S FIELD
0048  00773 160001          LDA B,I       GET STARTING T/S
0049  00774 076357R        STB SVAEN     SAVE DIREC ENTRY ADDR
0050  00775 066031X        LDB PNEAD     GET PACK NO. ENTRY ADDR
0051  00776 170001          STA B,I       STORE STARTING T/S IN PACK NO. E
0052  00777 072021X        STA STSWA     STORE STARTING T/S
0053  01000 066357R        LDB SVAEN     RESTORE DIREC ENTRY ADDR
0054  01001 006004          INB           INCREMENT TO FILE SIZE FIELD
0055  01002 160001          LDA B,I       GET FILE SIZE
0056  01003 066031X        LDB PNEAD     GET PACK NO. ENTRY ADDR
0057  01004 006004          INB           INCREMENT TO FILE SIZE FIELD
0058  01005 170001          STA B,I       STORE FILE SIZE
0059  01006 060116          LDA SECTR     GET DIRECTORY SIZE
0060  01007 040052          ADA MD1
0061  01010 006004          INB           INCREMENT TO DIREC SIZE FIELD
0062  01011 170001          STA B,I       STORE DIRECTORY SIZE
0063  01012 002400          CLA           LSA
0064  01013 006004          INB           INCREMENT TO LSA FIELD
0065  01014 170001          STA B,I       STORE LSA IN PACK NO. ENTRY
0066  01015 002404          CLA,INA       SEARCH FOR EXISTING ENTRY
0067  01016 006400          CLB           PN000
0068  01017 017556R        JSB CKPNT     ENTRY FOR PN000 EXIST ?
0069  01020 002001          RSS           NO
0070  01021 027026R        JMP SUWAP     YES
0071  01022 002400          CLA           SET NO. SECT. USED TO 0
0072  01023 072016X        STA NSUWA
0073  01024 027026R        JMP SUWAP
0074  01025          CPN00  EQU *
0075  01025 017507R        JSB CRPN0     CREATE PN00
0076  01026          SUWAP  EQU *
0077  01026 017261R        JSB CLWAP     CALC. WORK AREA PARAMETERS
0078  01027 062016X        LDA NSUWA     NO. SECT. USED IN W/A
0079  01030 003004          CMA,INA
0080  01031 042014X        ADA FLNGH     CALC. NO. AVAILABLE SECT.
0081  01032 003000          CMA
0082  01033 043465R        ADA CPNSF     NO. SECT. IN FILE
0083  01034 002021          SSA,RSS       W/A .GE. FILE SIZE?
0084  01035 017644R        JSB ER17      NO
0085  01036 026677R        JMP CKPN0     GO CHECK FOR A PACK NO. ENTRY
0086  01037          MOVDA  EQU *
0087  01037 060155          LDA SYSSC     SYST. SUB CH.
0088  01040 073453R        STA CPDSC     DESIRED SUB CH.
0089  01041 017127R        JSB CPMOV     MOVE SECTORS
0090  01042 063464R        LDA CPFPO     GET OPEN TABLE ENTRY ADDR
0091  01043 017600R        JSB STPNO     STORE NEW PACK NO. OFFSET
0092  01044 067464R        LDB CPFPO     FILE POSITION IN O.T.
0093  01045 044056          ADB D3
0094  01046 063461R        LDA BWATS     BEGINNING WORK AREA "T/S"
0095  01047 017564R        JSB STT.S     CONV. TO T/S
0096  01050 170001          STA B,I       NEW T/S
0097  01051 044061          ADB D6
0098  01052 002400          CLA
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0099  01053 170001          STA B,I       CLEAR DIRECTORY ENTRY T/S FIELD
0100  01054 006004          INB
0101  01055 170001          STA B,I       NEW PACK NO.
0102  01056 044056          ADB D3
0103  01057 170001          STA B,I       FORCE CUR. T/S TO ZERO
0104  01060 044052          ADB MD1
0105  01061 060155          LDA SYSSC     SYST. SUB CH.
0106  01062 170001          STA B,I       NEW SUB CH.
0107  01063 062016X         LDA NSUWA     NO. SECT. USED IN W/A
0108  01064 043465R         ADA CPNSF     NO. SECT. IN FILE
0109  01065 072016X         STA NSUWA     UPDATE NEW NO.
0110  01066 066031X         LDB PNEAD     GET PACK NO. ENTRY ADDR
0111  01067 044056          ADB D3        INCREMENT TO LSA FIELD
0112  01070 170001          STA B,I       STORE NEW LSA
0113  01071 063472R         LDA PNESW     GET PACK NO. ENTRY USED SWITCH
0114  01072 002003          SZA,RSS       NEW ENTRY USED ?
0115  01073 026004X         JMP EFCON     NO
0116  01074 062035X         LDA NXPTL     UPDATE ADDR OF NEXT PACK NO. ENT
0117  01075 040057          ADA D4
0118  01076 072035X         STA NXPTL
0119  01077 026004X         JMP EFCON     RETURN TO MAIN

0121  01100         GOCPY   EQU *         COPY PACK TO PACK
0122  01100 063465R         LDA CPNSF     NO. OF SECT. IN THIS FILE
0123  01101 073467R         STA NOSTM     NO. OF SECT. TO MOVE
0124  01102 017127R         JSB CPMOV     MOVE
0125  01103 026004X         JMP EFCON     RETURN TO MAIN

0127  01104         CPYT    EQU *         COPY TERMINATE
0128  01104 062026X         LDA DPNO      DESIRED PACK NO.
0129  01105 017534R         JSB GETPN     GET SPECIAL PACK NO.
0130  01106 017647R         JSB ER22
0131  01107 044056          ADB D3        INCREMENT TO STARTING T/S FIELD
0132  01110 160001          LDA B,I       GET STARTING T/S
0133  01111 072361R         STA DPNE      STORE STARTING T/S
0134  01112 062360R         LDA ADPNE     GET ADDR OF DUMMY PACK NO. ENTRY
0135  01113 072031X         STA PNEAD     STORE ADDR
0136  01114 017520R         JSB SETD1     SET UP FOR EFMP DIR
0137  01115 067464R         LDB CPFPO     ADDR. OF FILE NAME
0138  01116 017542R         JSB SRCD1     SEARCH DIRECTORY
0139  01117 017647R         JSB ER22
0140  01120 044063          ADB D8
0141  01121 002400          CLA
0142  01122 170001          STA B,I       "HRA" ON DISC
0143  01123 002404          CLA,INA       WRITE
0144  01124 066027X         LDB PAKSC     SUBCHANNEL
0145  01125 017606R         JSB PRWIO     UPDATE DIRECTORY ENTRY
0146  01126 017647R         JSB ER22
```

```
0148  01127 000000  CPMOV NOP             COPY MOVE
0149  01130 062015X       LDA NOTRB       NO. OF TRB'S
0150  01131 066023X       LDB TRBSZ
0151  01132 017611R       JSB MPY
0152  01133 073456R       STA MTRBS       MAX. TRB SIZE
0153  01134          CPYMR EQU *           COPY MORE
0154  01134 006400        CLB
0155  01135 077460R       STB NOSTM+1     INITIALIZE NO. SECT. MOVED THIS
0156  01136 003004        CMA,INA
0157  01137 043457R       ADA NOSTM       NO. SECT LEFT TO MOVE
0158  01140 067457R       LDB NOSTM
0159  01141 073457R       STA NOSTM       UPDATE NO. LEFT TO MOVE
0160  01142 002021        SSA,RSS
0161  01143 067456R       LDB MTRBS       GET SMALLER OF TWO
0162  01144 006003        SZB,RSS         FINISHED?
0163  01145 127127R       JMP CPMOV,I     YES
0164  01146 076034X       STB GNS         NO. SECT. TO XFER
0165  01147 063450R       LDA CPCSC       CURRENT SUB CH.
0166  01150 072033X       STA GSC
0167  01151 063451R       LDA CPCTS       CURRENT T/S
0168  01152 017564R       JSB STT.S       CONV. TO T/S
0169  01153 066022X       LDB TRBUF       START OF I/O AREA
0170  01154 017567R       JSB GRTXX       READ SECTORS
0171  01155 063453R       LDA CPDSC       DESIRED DISC
0172  01156 072033X       STA GSC
0173  01157 063454R       LDA CPNXS       NEXT "T/S"
0174  01160 017564R       JSB STT.S       CONV. TO T/S
0175  01161 066022X       LDB TRBUF       START OF I/O AREA
0176  01162 017572R       JSB GWTXX       WRITE DESIRED SECTORS
0177  01163 063451R       LDA CPCTS       CURRENT T/S
0178  01164 042034X       ADA GNS         NO. SECT. MOVED
0179  01165 073451R       STA CPCTS       UPDATE CURRENT T/S
0180  01166 063454R       LDA CPNXS       NEXT "T/S"
0181  01167 042034X       ADA GNS         NO. SECT. MOVED
0182  01170 073454R       STA CPNXS       UPDATE NEXT "T/S"
0183  01171 063460R       LDA NOSTM+1     NO. OF SECT. MOVED THIS TIME
0184  01172 042034X       ADA GNS         NO. SECT. MOVED
0185  01173 073460R       STA NOSTM+1
0186  01174 063456R       LDA MTRBS       MAX. TRB SECTORS
0187  01175 067457R       LDB NOSTM       NO. SECT. LEFT TO MOVE
0188  01176 006021        SSB,RSS         FINISHED?
0189  01177 027136R       JMP CPYMR+2     NO, COPY MORE
0190  01200 127127R       JMP CPMOV,I     RETURN



0192* CALFS - CALCULATE FILE SIZE (IN SECTORS)
0193* ENTER:
0194*          B = STARTING ADDR. OF FILE
0195* EXIT:
0196*          A = FILE SIZE (IN SECTORS)
0197*
0198  01201 000000  CALFS NOP             CALC. FILE SIZE
0199  01202 044057        ADB D4
0200  01203 160001        LDA B,I         FILE LENGTH (IN RECORDS)
0201  01204 006004        INB
```

```
0202  01205 164001          LDB B,I        RECORD LENGTH (IN WORDS)
0203  01206 017611R         JSB MPY
0204  01207 017614R         JSB DIV
0205  01210 001675R         DEF D128
0206  01211 102201          SOC            OVERFLOW?
0207  01212 017652R         JSB ER23       YES, ERROR SHOULD NOT OCCUR
0208  01213 006002          SZB            OVERFLOW?
0209  01214 002004          INA            YES, ADD 1 FULL SECTOR
0210  01215 127201R         JMP CALFS,I    RETURN

0212  01216 000000  MSTOW   NOP            MOVE SOURCE TO WORK AREA
0213  01217 060155          LDA SYSSC      GET SYSTEM SUBCHANNEL
0214  01220 072027X         STA PAKSC      STORE SUBCHANNEL
0215  01221 017523R         JSB SETD2      SET UP FOR DOS-M DIR.
0216  01222 066025X         LDB APN00      GET ADDR OF NAME
0217  01223 017542R         JSB SRCD1      SEARCH DIRECTORY
0218  01224 017507R         JSB CRPN0      CREATE PN000
0219  01225 017261R         JSB CLWAP      CALC. WORK-AREA PARAMETERS
0220  01226 017233R         JSB CLSTM      CAL. NO. SECT. TO MOVE
0221  01227 063216R         LDA MSTOW
0222  01230 073127R         STA CPMOV      PACK RETURN ADDR
0223  01231 063456R         LDA MTRBS      MAX. SECT. TO MOVE/READ-WRITE
0224  01232 027134R         JMP CPYMR      COPY MORE SECTORS

0226  01233 000000  CLSTM   NOP            CAL. NO. SECT. TO MOVE
0227  01234 062015X         LDA NOTRB      NO. OF TRB'S
0228  01235 066023X         LDB TRBSZ
0229  01236 017611R         JSB MPY
0230  01237 073456R         STA MTRBS      MAX. TRB SECTORS
0231  01240 062016X         LDA NSUWA      NO. SECT. USED IN W/A
0232  01241 003004          CMA,INA
0233  01242 042014X         ADA FLNGH      DOS-M FILE LENGTH (OF W/A
0234  01243 070001          STA B
0235  01244 003000          CMA
0236  01245 043456R         ADA MTRBS      CALC. LENGTH OF WORK AREA LEFT
0237  01246 002021          SSA,RSS        FILE LENGTH .LT. MAX. SECTORS.
0238  01247 077456R         STB MTRBS      SAVE SMALLEST NO. SECT. TO WRITE
0239  01250 060001          LDA B          WORK AREA LEFT
0240  01251 003000          CMA
0241  01252 043465R         ADA CPNSF      NO. OF SECT. IN FILE TO COPY
0242  01253 002021          SSA,RSS        W/A .GE. FILE LENGTH
0243  01254 077457R         STB NOSTM      NO. OF SECT. TO MOVE AT 1 TIME
0244  01255 073462R         STA CPALF      COPY-ALL FLAG
0245* CPALF = (-), ALL RECORDS COPIED
0246*       = (+), NO. OF RECORDS YET TO COPIED-1
0247  01256 060155          LDA SYSSC      SYST. SUB CH
0248  01257 073453R         STA CPDSC      PACK DESIRED SUB CH.
0249  01260 127233R         JMP CLSTM,I    RETURN



0251  01261 000000  CLWAP   NOP            CALC. WORK AREA PARAMETERS
0252  01262 066031X         LDB PNEAD      GET PACK NO. ENTRY ADDR
0253  01263 160001          LDA B,I        GET STARTING T/S
0254  01264 017561R         JSB T.STS      CONV. TO SECT.
0255  01265 042016X         ADA NSUWA      NO. SECT. USED IN W/A
```

```
0256  01266 073454R        STA CPNXS     STARTING "T/S" IN W/A
0257  01267 073461R        STA BWATS     BEGINNING FREE W/A "T/S"
0258  01270 006004         INB
0259  01271 160001         LDA B,I       FILE LENGTH(IN SECTORS)
0260  01272 072014X        STA FLNGH
0261  01273 067464R        LDB CPFPO     FILE POSITION IN W/A
0262  01274 017201R        JSB CALFS     CALC. FILE SIZE (IN SECT.)
0263  01275 073465R        STA CPNSF     SAVE NO. SECT. IN FILE
0264  01276 073467R        STA NOSTM     NO. SECT. TO MOVE
0265  01277 127261R        JMP CLWAP,I   RETURN

0267  01300 000000  GETDP  NOP           GET DESTINATION PACK
0268  01301 062026X        LDA DPNO      DESIRED PACK NO.
0269  01302 017534R        JSB GETPN     GET PACK NO.
0270  01303 027306R        JMP *+3       PACK NOT AVAILABLE
0271  01304 037300R        ISZ GETDP     P+2, PACK AVAILABLE
0272  01305 127300R        JMP GETDP,I   RETURN
0273  01306 016001X        JSB $SYIO
0274  01307 000002         DEC 2         WRITE
0275  01310 000001         OCT 1         L.U.
0276  01311 001374R        DEF MS1       INSERT DESTINATION PACK
0277  01312 000023         ABS LM1
0278  01313 001315R        DEF *+2
0279  01314 026002X        JMP $WAIT
0280  01315 102076         HLT 76B
0281  01316 017342R        JSB RCORT     READ C OR T
0282  01317 127300R        JMP GETDP,I   P+1, TERMINATE
0283  01320 027301R        JMP GETDP+1   CONTINUE

0285  01321 000000  GETSP  NOP           GET SOURCE PACK
0286  01322 063463R        LDA CPCPN
0287  01323 017534R        JSB GETPN     GET PACK NO.
0288  01324 027327R        JMP *+3       PACK NOT AVAILABLE
0289  01325 037321R        ISZ GETSP     P+2, PACK AVAILABLE
0290  01326 127321R        JMP GETSP,I   RETURN
0291  01327 016001X        JSB $SYIO
0292  01330 000002         DEC 2         WRITE
0293  01331 000001         OCT 1         L.U.
0294  01332 001417R        DEF MS2       INSERT SOURCE PACK
0295  01333 000021         ABS LM2       NO. WORDS
0296  01334 001336R        DEF *+2
0297  01335 026002X        JMP $WAIT
0298  01336 102076         HLT 76B
0299  01337 017342R        JSB RCORT     READ C OR T
0300  01340 127321R        JMP GETSP,I   P+1, TERMINATE
0301  01341 027322R        JMP GETSP+1   CONTINUE

0303  01342 000000  RCORT  NOP           READ C OR T
0304  01343 016001X        JSB $SYIO
0305  01344 000002         DEC 2         WRITE
0306  01345 000001         OCT 1         L.U.
0307  01346 001440R        DEF MS3       ENTER C OR T
0308  01347 000007         ABS LM3
0309  01350 001352R        DEF *+2
0310  01351 026002X        JMP $WAIT
0311  01352 016001X        JSB $SYIO
```

```
0312  01353 000001         DEC 1          READ
0313  01354 000401         OCT 401
0314  01355 001447R        DEF MS4
0315  01356 000001         ABS LM4
0316  01357 001361R        DEF *+2
0317  01360 026002X        JMP SWAIT
0318  01361 063447R        LDA MS4        C OR T
0319  01362 010075         AND H8BT
0320  01363 053373R        CPA T
0321  01364 127342R        JMP RCORT,I    P+1, TERMINATE
0322  01365 053372R        CPA C
0323  01366 002001         RSS
0324  01367 027343R        JMP RCORT+1    INVALID, REPEAT
0325  01370 037342R        ISZ RCORT      P+2
0326  01371 127342R        JMP RCORT,I    CONTINUE
0327  01372 041400  C       OCT 041400
0328  01373 052000  T       OCT 052000
0329  01374 044516  MS1     ASC 19,INSERT DESTINATION PACK AND PRESS RUN.
      01375 051505
      01376 051124
      01377 020104
      01400 042523
      01401 052111
      01402 047101
      01403 052111
      01404 047516
      01405 020120
      01406 040503
      01407 045440
      01410 040516
      01411 042040
      01412 050122
      01413 042523
      01414 051440
      01415 051125
      01416 047056
0330  00023           LM1     EQU *-MS1
0331  01417 044516    MS2     ASC 17,INSERT SOURCE PACK AND PRESS RUN.
      01420 051505
      01421 051124
      01422 020123
      01423 047525
      01424 051103
      01425 042440
      01426 050101
      01427 041513
      01430 020101
      01431 047104
      01432 020120
      01433 051105
      01434 051523
      01435 020122
      01436 052516
      01437 027040
0332  00021           LM2     EQU *-MS2
0333  01440 042516    MS3     ASC  7,ENTER C OR T.
```

```
      01441 052105
      01442 051040
      01443 041440
      01444 047522
      01445 020124
      01446 027040
0334  00007         LM3   EQU *-MS3
0335  01447 000000  MS4   OCT 0
0336  00001         LM4   EQU *-MS4
0337  01450 000000  CPCSC OCT 0          CURRENT SUB CH.
0338  01451 000000  CPCTS OCT 0,0        CURRENT "T/S" (IN SECTORS)
      01452 000000
0339  01453 000000  CPDSC OCT 0          DESIRED SUB CH.
0340  01454 000000  CPNXS OCT 0,0        NEXT FILE SECT.
      01455 000000
0341  01456 000000  MTRBS OCT 0          MAX. TRB SECTORS
0342  01457 000000  NOSTM OCT 0,0        NO. SECT. LEFT TO MOVE
      01460 000000

0344  01461 000000  BWATS OCT 0          BEGINNING FREE W/A "T/S"
0345  01462 000000  CPALF OCT 0          COPY-ALL FLAG,(-)FIN,(+)SEC.LF-1
0346  01463 000000  CPCPN OCT 0          CURRENT PACK NO.
0347  01464 000000  CPFPO OCT 0          COPY-FILE POSITION IN O.T.
0348  01465 000000  CPNSF OCT 0,0        NO. OF SECT. IN THIS FILE
      01466 000000
0349  01467 000000  SCODE OCT 0          SECURITY CODE
0350  01470 000000  PNOFF OCT 0          PACK NO. OFFSET
0351  01471 000000  PNSAV BSS 1          PACK NO. ENTRY ADDR
0352  01472 000000  PNESW BSS 1          PACK NO. ENTRY USED SWITCH
```

```
0354  01473 000000  MOVE   NOP
0355  01474 016036X         JSB  MASUB
0356  01475 000001         DEC  1
0357  01476 000000  POST   NOP
0358  01477 016036X         JSB  MASUB
0359  01500 000002         DEC  2
0360  01501 000000  CKVSU  NOP
0361  01502 016036X         JSB  MASUB
0362  01503 000004         DEC  4
0363  01504 000000  NAM0?  NOP
0364  01505 016036X         JSB  MASUB
0365  01506 000005         DEC  5
0366  01507 000000  CRPN0  NOP
0367  01510 016036X         JSB  MASUB
0368  01511 000006         DEC  6
0369  01512 000000  CKPN   NOP
0370  01513 016036X         JSB  MASUB
0371  01514 000007         DEC  7
0372  01515 000000  SVPNS  NOP
0373  01516 016036X         JSB  MASUB
0374  01517 000010         DEC  8
0375  01520 000000  SETD1  NOP
0376  01521 016036X         JSB  MASUB
0377  01522 000012         DEC  10
0378  01523 000000  SETD2  NOP
0379  01524 016036X         JSB  MASUB
0380  01525 000013         DEC  11
0381  01526 000000  REPNS  NOP
0382  01527 016036X         JSB  MASUB
0383  01530 000015         DEC  13
0384  01531 000000  MVPNT  NOP
0385  01532 016036X         JSB  MASUB
0386  01533 000020         DEC  16
0387  01534 000000  GETPN  NOP
0388  01535 016036X         JSB  MASUB
0389  01536 000021         DEC  17
0390  01537 000000  CKOPN  NOP
0391  01540 016036X         JSB  MASUB
0392  01541 000022         DEC  18
0393  01542 000000  SRCD1  NOP
0394  01543 016036X         JSB  MASUB
0395  01544 000023         DEC  19
0396  01545 000000  GTNPN  NOP
0397  01546 016036X         JSB  MASUB
0398  01547 000024         DEC  20
0399  01550 000000  CKDSP  NOP
0400  01551 016036X         JSB  MASUB
0401  01552 000025         DEC  21
0402  01553 000000  CMPAR  NOP
0403  01554 016036X         JSB  MASUB
0404  01555 000027         DEC  23
0405  01556 000000  CKPNT  NOP
0406  01557 016036X         JSB  MASUB
0407  01560 000030         DEC  24
0408  01561 000000  T.STS  NOP
0409  01562 016036X         JSB  MASUB
```

```
0410  01563 000032          DEC 26
0411  01564 000000  STT.S   NOP
0412  01565 016036X         JSB MASUB
0413  01566 000033          DEC 27
0414  01567 000000  GRTXX   NOP
0415  01570 016036X         JSB MASUB
0416  01571 000035          DEC 29
0417  01572 000000  GWTXX   NOP
0418  01573 016036X         JSB MASUB
0419  01574 000036          DEC 30
0420  01575 000000  CKSPC   NOP
0421  01576 016036X         JSB MASUB
0422  01577 000037          DEC 31
0423  01600 000000  STPNO   NOP
0424  01601 016036X         JSB MASUB
0425  01602 000040          DEC 32
0426  01603 000000  PRETS   NOP
0427  01604 016036X         JSB MASUB
0428  01605 000042          DEC 34
0429  01606 000000  PRWIO   NOP
0430  01607 016036X         JSB MASUB
0431  01610 000043          DEC 35
0432  01611 000000  MPY     NOP
0433  01612 016036X         JSB MASUB
0434  01613 000044          DEC 36
0435  01614 000000  DIV     NOP
0436  01615 016036X         JSB MASUB
0437  01616 000045          DEC 37
```

```
0439  01617           ER2    EQU *
0440  01617 000000           OCT 0
0441  01620 060055           LDA D2
0442  01621 017660R          JSB ERR
0443  01622           ER3    EQU *
0444  01622 000000           OCT 0
0445  01623 060056           LDA D3
0446  01624 017660R          JSB ERR
0447  01625           ER4    EQU *
0448  01625 000000           OCT 0
0449  01626 060057           LDA D4
0450  01627 017660R          JSB ERR
0451  01630           ER6    EQU *
0452  01630 000000           OCT 0
0453  01631 060061           LDA D6
0454  01632 017660R          JSB ERR
0455  01633           ER11   EQU *
0456  01633 000000           OCT 0
0457  01634 063665R          LDA D11
0458  01635 017660R          JSB ERR
0459  01636           ER15   EQU *
0460  01636 000000           OCT 0
0461  01637 063667R          LDA D15
0462  01640 017660R          JSB ERR
0463  01641           ER16   EQU *
0464  01641 000000           OCT 0
0465  01642 063670R          LDA D16
0466  01643 017660R          JSB ERR
0467  01644           ER17   EQU *
0468  01644 000000           OCT 0
0469  01645 063671R          LDA D17
0470  01646 017660R          JSB ERR
0471  01647           ER22   EQU *
0472  01647 000000           OCT 0
0473  01650 063672R          LDA D22
0474  01651 017660R          JSB ERR
0475  01652           ER23   EQU *
0476  01652 000000           OCT 0
0477  01653 063673R          LDA D23
0478  01654 017660R          JSB ERR
0479  01655           ER24   EQU *
0480  01655 000000           OCT 0
0481  01656 063674R          LDA D24
0482  01657 017660R          JSB ERR
0483  01660 000000  ERR      NOP
0484  01661 067660R          LDB ERR
0485  01662 044050           ADB MD3
0486  01663 164001           LDB B,I        PICK UP LOC OF ERROR
0487  01664 026003X          JMP ERROR
```

```
0489  00000           A       EQU 0
0490  00001           B       EQU 1
0491  00053           .       EQU 53B
0492  00074           L8BT    EQU 74B
0493  00075           H8BT    EQU 75B
0494  00116           SECTR   EQU 116B
0495  00155           SYSSC   EQU 155B
0496  00041           MD10    EQU .-10
0497  00042           MD9     EQU .-9
0498  00043           MD8     EQU .-8
0499  00044           MD7     EQU .-7
0500  00047           MD4     EQU .-4
0501  00050           MD3     EQU .-3
0502  00051           MD2     EQU .-2
0503  00052           MD1     EQU .-1
0504  00054           D1      EQU .+1
0505  00055           D2      EQU .+2
0506  00056           D3      EQU .+3
0507  00057           D4      EQU .+4
0508  00061           D6      EQU .+6
0509  00062           D7      EQU .+7
0510  00063           D8      EQU .+8
0511  00065           D10     EQU .+10
0512  01665 000013    D11     DEC 11
0513  01666 000014    D12     DEC 12
0514  01667 000017    D15     DEC 15
0515  01670 000020    D16     DEC 16
0516  01671 000021    D17     DEC 17
0517  01672 000026    D22     DEC 22
0518  01673 000027    D23     DEC 23
0519  01674 000030    D24     DEC 24
0520  01675 000200    D128    DEC 128
0521  01676 001747    D999    DEC 999
0522  01677 000011    MXWPE   DEC 9
0523  01700 001701R   AARG1   DEF ARG1
0524  01701 000000    ARG1    OCT 0
0525  01702 000000    ARG2    OCT 0
0526  01703 000000    ARG3    OCT 0
0527  01704 000000    ARG4    OCT 0
0528  01705 000000    ARG5    OCT 0
0529  01706 000000    ARG6    OCT 0
0530  01707 000000    ARG7    OCT 0
0531  01710 000000    ARG8    OCT 0
0532                          END
** NO ERRORS*
```

```
$EX33   00014/02 00004/02

$SYIO   00005/02 00273/03 00291/03 00304/03 00311/03

$WAIT   00005/02 00279/03 00297/03 00310/03 00317/03

.       00491/03 00496/03 00497/03 00498/03 00499/03 00500/03 00501/03
        00502/03 00503/03 00504/03 00505/03 00506/03 00507/03 00508/03
        00509/03 00510/03 00511/03

A       00489/03 00066/02 00133/02 00142/02 00359/02 00402/02 00513/02
        00005/03 00008/03 00036/03

A$BUF   00007/02 00146/02 00166/02

AARG1   00523/03 00019/02

ADPNE   00277/02 00039/02 00356/02 00028/03 00039/03 00134/03

AGSDR   00271/02 00262/02

AINVC   00008/02 00061/02 00076/02 00154/02 00182/02

APN00   00009/02 00429/02 00455/02 00044/03 00216/03

ARG1    00524/03 00523/03

ARG2    00525/03 00021/02

ARG3    00526/03 00033/02 00051/02 00291/02 00293/02

ARG4    00527/03 00327/02 00333/02 00337/02 00421/02

*ARG5   00528/03

*ARG6   00529/03

*ARG7   00530/03

*ARG8   00531/03

ARGP1   00009/02 00018/02

B       00490/03 00046/02 00048/02 00068/02 00090/02 00095/02 00102/02
        00111/02 00117/02 00122/02 00148/02 00213/02 00219/02 00224/02
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        00401/02 00409/02 00412/02 00415/02 00418/02 00442/02 00048/03
        00051/03 00055/03 00058/03 00062/03 00065/03 00096/03 00099/03
        00101/03 00103/03 00106/03 00112/03 00132/03 00142/03 00200/03
        00202/03 00234/03 00239/03 00253/03 00259/03 00486/03

BWATS   00344/03 00464/02 00491/02 00094/03 00257/03

C       00327/03 00322/03
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CKDSP 00399/03 00378/02

CKOPN 00390/03 00108/02 00210/02 00294/02

CKPN 00369/03 00034/02

CKPN0 00504/02 00085/03

CKPNT 00405/03 00395/02 00509/02 00521/02 00011/03 00016/03 00021/03
00068/03

CKSPC 00420/03 00370/02

CKVSU 00360/03 00032/02 00289/02

CLRSC 00390/02 00380/02

CLSTM 00226/03 00483/02 00220/03 00249/03

CLWAP 00251/03 00432/02 00458/02 00077/03 00219/03 00268/03

CMPAR 00402/03 00077/02 00183/02

CPALF 00345/03 00471/02 00244/03

CPCPN 00346/03 00304/02 00309/02 00448/02 00479/02 00286/03

CPCSC 00337/03 00084/02 00307/02 00463/02 00480/02 00165/03

CPCTS 00338/03 00097/02 00300/02 00301/02 00465/02 00487/02 00489/02
00490/02 00167/03 00177/03 00179/03

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00182/03 00256/03

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CPTOD 00447/02 00423/02

CPTOS 00502/02 00339/02

CPYMR 00153/03 00496/02 00189/03 00224/03

CPYT 00127/03 00478/02

CRPN0 00366/03 00075/03 00218/03

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D11 00512/03 00022/02 00457/03

D12 00513/03 00024/02 00110/02 00212/02

D128 00520/03 00176/02 00205/03

D15 00514/03 00461/03

D16 00515/03 00465/03

D17 00516/03 00469/03

D2 00505/03 00305/02 00512/02 00441/03

D22 00517/03 00473/03

D23 00518/03 00477/03

D24 00519/03 00481/03

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D999 00521/03 00330/02

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DPNE 00278/02 00277/02 00133/03

DPN0 00009/02 00116/02 00218/02 00336/02 00394/02 00128/03 00268/03

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EFCON 00006/02 00026/02 00053/02 00056/02 00436/02 00473/02 00115/03
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ER16 00463/03 00522/02 00017/03 00037/03

ER17 00467/03 00084/03

ER2 00439/03 00364/02

ER22 00471/03 00350/02 00499/02 00130/03 00139/03 00146/03

ER23 00475/03 00156/02 00431/02 00207/03

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ER3 00443/03 00320/02 00444/02

ER4 00447/03 00371/02 00389/02

ER6 00451/03 00038/02

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FLNGH 00008/02 00080/03 00233/03 00260/03

FNXVF 00072/02 00079/02 00129/02

FUN11 00031/02 00023/02

FUN12 00288/02 00025/02

GETD 00349/02 00443/02

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GETPN 00387/03 00037/02 00344/02 00449/02 00129/03 00269/03 00287/03

GETSP 00285/03 00477/02 00289/03 00290/03 00300/03 00301/03

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GNTSD 00252/02 00247/02

GNXVF 00178/02 00185/02 00207/02 00211/02 00216/02 00221/02 00225/02

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GSC     00010/02 00172/02 00237/02 00166/03 00172/03

GTNPN   00396/03 00065/02

GTSDE   00261/02 00073/02 00179/02 00268/02 00269/02 00270/02

GTSDR   00267/02 00271/02

GWTXX   00417/03 00240/02 00176/03

H8BT    00493/03 00319/03

L8BT    00492/03 00313/02

LM1     00330/03 00277/03

LM2     00332/03 00295/03

LM3     00334/03 00308/03

LM4     00336/03 00315/03

MASUB   00012/02 00355/03 00358/03 00361/03 00364/03 00367/03 00370/03
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        00394/03 00397/03 00400/03 00403/03 00406/03 00409/03 00412/03
        00415/03 00418/03 00421/03 00424/03 00427/03 00430/03 00433/03
        00436/03

MD1     00503/03 00069/02 00096/02 00222/02 00060/03 00104/03

MD10    00496/03 00311/02

MD2     00502/03 00115/02 00217/02 00515/02

MD3     00501/03 00485/03

MD4     00500/03 00026/03

MD7     00499/03 00120/02

MD8     00498/03 00016/02

MD9     00497/03 00209/02

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MOVDA   00086/03 00001/03 00031/03

MOVE    00354/03 00020/02 00201/02 00030/03
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MS2 00331/03 00294/03 00332/03

MS3 00333/03 00307/03 00334/03

MS4 00335/03 00314/03 00318/03 00336/03

MSTOW 00212/03 00347/02 00221/03

MTRBS 00341/03 00495/02 00152/03 00161/03 00186/03 00223/03 00230/03
00236/03 00238/03

MVPNE 00025/03 00018/03

MVPNT 00384/03 00518/02

MXWPE 00522/03 00187/02 00196/02 00376/02

NAM0? 00363/03 00292/02

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NOPAS 00007/02 00265/02

NOSEC 00010/02 00368/02 00416/02

NOSTM 00342/03 00082/02 00126/02 00468/02 00469/02 00476/02 00482/02
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00183/03 00185/03 00187/03 00243/03 00264/03

NOTRB 00008/02 00149/03 00227/03

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NSUWA 00008/02 00072/03 00078/03 00107/03 00109/03 00231/03 00255/03

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00229/02 00258/02

NXPTL 00011/02 00116/03 00118/03

NXSEC 00280/02 00158/02 00241/02 00243/02 00248/02 00255/02

NXSID 00273/02 00163/02 00206/02 00223/02 00239/02 00256/02

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NXTRK 00281/02 00160/02 00249/02 00251/02 00253/02

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        00214/03

PNEAD   00010/02 00040/02 00047/02 00065/02 00089/02 00132/02 00141/02
        00317/02 00357/02 00391/02 00397/02 00405/02 00411/02 00029/03
        00040/03 00050/03 00056/03 00110/03 00135/03 00252/03

PNESW   00352/03 00506/02 00024/03 00113/03

PNOFF   00350/03 00514/02 00517/02 00006/03 00010/03 00035/03

PNSAV   00351/03 00392/02 00399/02 00404/02

POST    00357/03 00059/02 00290/02

PRETS   00426/03 00134/02

PRWIO   00429/03 00106/02 00137/02 00151/02 00145/03

RCORT   00303/03 00281/03 00299/03 00321/03 00324/03 00325/03 00326/03

REPAK   00058/02 00049/02

REPNS   00381/03 00054/02

RPDOK   00195/02 00191/02

RPEOD   00227/02 00180/02

RPFPO   00282/02 00075/02 00080/02 00091/02 00107/02 00181/02 00199/02

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RPNTS   00283/02 00071/02 00086/02 00121/02 00124/02 00128/02 00138/02
        00140/02 00145/02

RPNXT   00050/02 00063/02 00231/02

SCODE   00349/03 00326/02 00374/02 00386/02 00410/02

SECIO   00007/02 00157/02 00162/02 00205/02

SECTR   00494/03 00245/02 00059/03

SETD1   00375/03 00060/02 00153/02 00318/02 00360/02 00136/03

SETD2   00378/03 00428/02 00454/02 00043/03 00215/03

SPN00   00038/03 00503/02

SRCD1   00393/03 00062/02 00155/02 00319/02 00362/02 00430/02 00456/02
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STT.S 00411/03 00070/02 00127/02 00095/03 00168/03 00174/03

SUWAP 00076/03 00070/03 00073/03

SVAEN 00276/02 00042/02 00044/02 00049/03 00053/03

SVNXT 00041/02 00057/02

SVPNS 00372/03 00043/02

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TRBUF 00009/02 00167/02 00173/02 00175/02 00238/02 00257/02 00169/03
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TRKIO 00007/02 00159/02 00203/02

UDNAT 00131/02 00074/02

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